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	PAGE
OPERATIVE FACTORS IN SPONTANEOUS TELE- PATHY BY G. F. DALTON	287
ESP AND MOOD: REPORT OF A 'MASS' EXPERI- MENT. BY G. W. FISK AND D. J. WEST	320
WHAT IS THE AGENT'S ROLE IN ESP? A REPORT OF WORK IN PROGRESS. BY JOHN LANGDON-DAVIES	329
SURVEY OF SPONTANEOUS CASES	337
REVIEWS	339
CORRESPONDENCE	341
OBITUARY: CARL VETT	347
NEWS AND NOTES	348

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OPERATIVE FACTORS IN
SPONTANEOUS TELEPATHY

BY G. F. DALTON

Summary

FROM *Phantasms of the Living* and other sources, 124 cases are selected by elimination of (1) experimental cases, (2) those of lower evidential value, and (3) those which are possibly precognitive. The selected cases are analysed in respect of : (1) the sensitivity of the percipient, (2) his state at the time, (3 and 4) the efficacy and state of the agent, (5 and 6) the orientation of each, (7) the linkage between them, (8) the intensity of the experience, and (9) the information conveyed. The following conclusions are reached : 1. The fundamental process in spontaneous telepathy is the transference to the percipient of a psychical experience of the agent. 2. In death cases, the agent's experience occurs after death, is of great intensity, and is connected with the loss of the body. 3. Collective cases are due to interaction between percipients under conditions of positive feedback, resulting in a building-up of the experience to great intensity. 4. Reciprocal cases may be due to the similar building-up of a common drama underlying the apparently separate experiences of the percipients.

The following terms are used :

The *experience* is the percipient's hallucination, dream, etc. The *event* is what happens to the agent. The *news* is the news of the event as received by the percipient.

The *recording interval* is the interval between the experience and the time when it was written down, or told to an investigator. The *telepathic interval* is the interval between the experience and the event. The *precognitive interval* is the interval between the experience and the receipt of the news.

Cases are named from the percipient if possible, otherwise from the agent or the reporter. A case referred to by name will be found in the list of selected cases, Appendix I. For other cases the

original sources must be consulted, the chief of these being *Phantasms of the Living* (abbreviated 'P.L.'), and Mrs Sidgwick's paper of the same name in *Proc.* xxxiii (abbreviated 'Si.').

IN THE investigation of any subject it is convenient to have a clearly-defined corpus of material, so that one cannot unconsciously choose one's facts to suit one's theories. For present purposes this is provided by the two large collections, P.L. and Si., to the second of which should be added the 54 cases which would have been included in it if they had not been previously published. This gives a total of about 1,000 cases. From this total, however, certain large deductions must be made.

I. All experimental and semi-experimental cases must be taken out. I count as experimental any case in which the agent or percipient exerts his will with the object of sending or receiving a telepathic message; this is a slightly more inclusive classification than that in P.L., and includes, for instance, P.L. 99, in which the agent, at a crisis of illness, summoned help telepathically.

II. Mrs Sidgwick admits no case in which the recording interval is over 5 years. Nearly half the cases in P.L. are older than this. In order to establish a uniform evidential standard, all these old cases have been excluded. So, too, have the cases in the Supplement, considered by the authors themselves to have a lower evidential value; and the cases bracketed in Si. for the same reason. Four other cases in Si. have been excluded: two (L827, L828) which Mrs Sidgwick considers doubtful, and two (L896, L1200) in which the experience was not in any way veridical.

III. A scarcely less numerous class comprises those cases which may be precognitive. J. W. Dunne suggested in 1927 that many cases put down to telepathy were really due to precognition; and a glance through either of the main collections will show many examples in which this appears very likely. There are, for instance, the 'arrival' cases, the 'rumour' cases, and the 'letter' cases. All these are very difficult to explain telepathically; we have to fall back on such desperate hypotheses as telepathy from newspaper reporters, burglars, boards of examiners, and so on. Precognition is a much more satisfactory explanation. But there are many other cases in which the two hypotheses are almost equally plausible. In an attempt to distinguish the genuinely telepathic cases, the following criteria were used:

(a) If the news never reaches the percipient, obviously the experience cannot be precognitive. This covers very few cases; but there are many others in which the news was told to the

percipient only in consequence of his experience. Unless causation can work in a circle, these too must be telepathic.

(b) This is really a sub-section of (a). Some detail of the event, which would not normally have come to the percipient's knowledge, turns out on enquiry (which enquiry must be due to the experience) to correspond with a detail of his experience.

(c) Precognitive intervals tend to be short¹; and the cases before us, as well as some experimental evidence, suggest that the same is true for telepathy. Consequently, if we find a number of cases in which the experience is nearly simultaneous with the event, and is long before the news, we should be inclined to regard them as telepathic. In the present paper, a case is admitted as telepathic if the precognitive interval is more than 10 times the telepathic. It is of course possible for both factors to be present: a possibility neatly demonstrated by the Porter case, in which Mrs Porter had two dreams about her son's accident—one within half-an-hour of the event, and the other on the night before the arrival of the news two weeks later.

(d) If the experience can only be explained in terms of the agent's psychology, it is almost certainly telepathic. This point is illustrated by the Herbert and Gottschalk cases, discussed below.

(e) In collective cases the precognitive explanation is generally very implausible, and I have admitted all collective cases of good evidential standard. In reciprocal cases, however, precognition is a possibility. I class as reciprocal all cases in which there are two experiences which appear to be connected with each other and not caused by any third party acting as agent; simultaneous dreams, etc., are thus included. In such cases it often happens that one experience is of an ordinary subjective type, and the other is apparently derived from it. Thus in L965 (Si. 355) Mr Armstrong's dream is of the regular anxiety type: he rushes out in shirt-sleeves to try to prevent an ill-advised marriage. At the same time the prospective bridegroom dreamed of the same incident from his point of view. It is rather rare for a dreamer to be a mere bystander in his dream while the emotional interest is concentrated on someone else, and it is safe to say that the bridegroom's dream was caused by the other. The only question is whether it was caused telepathically or precognitively. The two men were sleeping in the same room, and on waking each told his dream to the other. Consequently Mr Armstrong's dream was available, precognitively, to the other as material for his own, and there may have been no telepathy. A similar argument applies to most simultaneous dreams, and I have excluded all except those

¹ *Jnl. S.P.R.*, xxxvii, 1954, 297.

in which the dreamers were some distance apart, and the dreams were not immediately communicated.

I have not been able to exclude the possibility of clairvoyance, except in cases of the types mentioned in III (*d*) and (*e*) above ; but it will appear later than the agent's state of mind has an important influence on the majority of experiences, so that clairvoyance seems unlikely. I have little doubt that many if not most of the cases which have been excluded as precognitive are really telepathic, and equally little doubt that most of the cases excluded as of doubtful evidential value are really genuine ; but it is better to be over-cautious than otherwise.

After making these very drastic deductions, we are left with 124 selected cases, of which 82 are individual, 7 reciprocal and 35 collective. 58 come from P.L., 51 from Si., and 15 from the other works mentioned by Mrs Sidgwick.

It must be emphasised that these sources are themselves by no means a random sample of telepathic cases. On the contrary, they are the result of a very drastic triple selection. The coincidence between experience and event, which is the essential thing in every telepathic case, must in the first instance be noticed by the persons concerned. The percipient must hear of the event, or the agent of the experience, or some third person must hear of both. For this, there must usually be some acquaintance between the parties ; and the more trivial the event and the less intense the experience, the closer the acquaintance must be. Anyone's dreams might be full of remarkable coincidences with events in the life of a complete stranger, but the fact would never come to light. (This, however, is on general considerations unlikely ; the question is discussed below in connection with linkage.)

Secondly, the observed coincidence must be reported or published. This condition eliminates cases which involve matters of a very private nature ; also some dream cases in which the dream is indecent, as they often are ; and cases which would tend to bring either party into disrepute. Alternatively the details may be altered so as to conceal such matters, thereby undesignedly misleading subsequent investigators. There is also at this stage a loss of cases which seem too trivial to be worth reporting. This is specially to be regretted, as these are often very illuminating.

Thirdly, the investigators select such cases as seem to them most evidential. They prefer events and experiences which are unusual, and which can be established from external evidence. This leads to a high proportion of visual hallucinations and of death cases. Among the latter, there is a large number of deaths by violence ; this is probably because such deaths are usually unexpected, and

so cannot cause hallucinations through anxiety. The limits of time-coincidence were fixed at 0-12 hours after the event in P.L., and ± 12 hours in Si. Some cases of precognitive telepathy have therefore been excluded from the earlier work, and cases with long telepathic intervals are excluded from both.

The collections are limited also by the industry of the collectors and the general interest taken in the subject at the time. These and other causes have resulted in a large proportion of the cases dating from between 1870 and 1900. I cannot see, however, that they are any the worse for that.

The collections, as we have them, are therefore biased in several different ways. I do not think that the biases are such as to invalidate the conclusions drawn below, but the possibility must be borne in mind.

The factors which, according to our present knowledge, are likely to affect telepathy are: (1) the sensitivity of the percipient, (2) his state of mind at the time, (3) the efficacy of the agent, (4) his state at the time, (5 and 6) the orientation of each towards the other, and (7) the linkage between them. In several of these it is possible to indicate favourable or unfavourable conditions.

1. No one will dispute that some percipients are more sensitive than others. The experimental evidence alone would establish this. In spontaneous cases, it is frequently mentioned that the percipient has had other experiences—sometimes veridical, sometimes apparently subjective. It is impossible, however, to prove that an experience is *not* veridical; so I have classed as 'sensitives' all percipients who have had more than one hallucination or waking impression. Dreams require a somewhat different treatment, as most people have vivid dreams now and then; here I have stipulated that if both experiences are dreams, they must both be veridical.

In the 124 selected cases there are 181 percipients, of whom 52 are sensitives. This remarkably large proportion is accounted for to a great extent by bias in the collections. A sensitive is more likely to note down his experiences, to take them seriously, and to report them. It would be easy, however, to exaggerate the effect of this bias; and it must also be noted that of these 52, 30 have had more than one *veridical* experience, and 14 have had three or more. If there were no such thing as sensitivity, and if the probability of a telepathic experience for any person taken at random is of the order of $1/1000$ (and it is probably less), then the probability of two occurrences to the same person would be $1/10^6$, and of three $1/10^9$. The observed figures, then, go far to show that sensitivity is a real and important factor.

2. It is also well established in experimental work that the percipient's state of mind has a great influence on results. In spontaneous cases, the percipient may be (1) asleep, (2) resting, (3) working or otherwise active, but alone and undisturbed, or (4) in company with others, talking, etc.

TABLE I. ALL CASES

	Individual		Reciprocal		Collective		Total	
	Sens.	Non-sens.	Sens.	Non-sens.	Sens.	Non-sens.	Sens.	Non-sens.
1. Asleep	12	20	1	5	2	5	15	30
2. Resting	9	13	1	3	2	13	12	29
3. Active	6	12	1	1	4	15	11	28
4. In company	3	7	1	1	10	34	14	42
Totals	30	52	4	10	18	67	52	129

Table I shows that with individual and reciprocal cases, states 1 and 2 are the most favourable; with collective cases, however, the great majority of percipients are in state 4. The deficiency of collective dreams (state 1) is equally remarkable. Sensitives do not differ from others in respect of state, and the only peculiarity is the small proportion of sensitives in collective cases. All the anomalies in the table, in fact, are connected with collective cases, and will be dealt with in a later section.

3. The first question which must be decided about the agent is his identity. It has been repeatedly pointed out that the agent is not necessarily the person who appears in the hallucination or dream; but this principle has not been used as widely as it might have been. For instance, in the Holborn case the figure of the dead mother of a dying boy was seen by two people attending on him. The *prima facie* conclusion is that the dead woman was the agent; but this is somewhat shaken by the Reddell case, in which the figure seen under similar circumstances was that of the *living* mother, who did not know of the illness; and it is reduced almost to absurdity by P.L. 299, in which the watcher by the bedside saw the dying man's entire family. Again, we have the Evens case, in which the figure seen was that of a gentleman quite unknown to the percipient; his son, however, was very well known to her, and had been giving her a course of hypnotic treatment. Parent-images, as we now know, are a permanent part of one's mental make-up; and I have no doubt that these are examples of parent-images, and not of agency by the real parent.

The identity of the agent is also doubtful in many collective and reciprocal cases. These types of case are therefore excluded in the tables which are concerned with agency. Many other cases of doubtful agency have been excluded as possibly precognitive ; a few others remain in the selected list, but they are not of enough interest to call for individual discussion.

That some agents are more effective than others has been shown experimentally by Soal and others. The evidence from spontaneous cases is in this respect scanty ; but there are a few examples in which the same agent has been concerned in two or more cases with different percipients. There are 4 of these in the selected list—too few for analysis. It is worth noting, however, that two of the 'effective' agents, Mrs Stone and Mr Pierce, were also sensitive percipients, which suggests some connection between the two factors.

4. We have little or no experimental evidence about the agent's state. Here the spontaneous cases are much more informative. I classify them as follows :

1. Death from illness (or unknown cause).
2. Violent death.
3. Non-fatal accident or illness.
4. Various other states.

The numbers under each heading are given as sub-totals in Table III, later. The proportion of sensitives is higher in the trivial cases brought together under state 4, as might be expected ; a sensitive is more likely to report such cases.

5 and 6. By orientation I mean that the attention of one party is for the time being directed towards the other. This has been shown by Soal to have an important effect in experimental work, as far as the percipient is concerned.¹ I do not know of any experiments on orientation of the agent. In spontaneous cases, orientation may take several forms, and is often unconscious.

The Herbert case is a good example. A young lady named Miss Mason was travelling in Scotland, and went to see the Falls of Lora—a tidal waterfall in Loch Etive. She was at the time 'in extreme anxiety about some friends of mine who were in great trouble, of which I alone knew, and might not tell', and she fancied these friends drowning in the whirlpools and herself trying to save them. This fantasy impressed itself strongly on her mind, and recurred a week later, when something happened to reawaken her anxiety. She lay awake all night, obsessed by the image. The

¹ *The Experimental Situation in Psychological Research* (Ninth Myers Memorial Lecture), pp. 43-4.

same night her maid, Margaret Herbert, dreamed of 'a waterfall of the sea', and of herself 'standing on high rocks, trying to save people with ropes' out of 'the most dreadful whirlpools'. The maid had not accompanied her to the Falls and had never heard of them.

This case is one of those in which clairvoyance is highly unlikely, since the image transferred had no objective existence. Moreover, this image had significance only for the agent. The dream is a piece of Miss Mason's interior life which has somehow wandered into another mind. Why did it wander into the maid's in particular? She is described by Miss Mason as 'a matter-of-fact, middle-aged woman, who has lived nearly all her life in my family, and was my nurse'. The last words give the clue. At an earlier age Miss Mason would have looked to the nurse to help her out of any difficulty, and the unconscious, as usual, bases itself on the habits of early life. The motivation of the dream may be expressed, on the agent's side, by some such phrase as 'I wish I could tell nurse about this'. On the percipient's side, we may easily suppose that Margaret Herbert had noticed her mistress's low spirits, and wished she could come to her help.

This supposition, however, is perhaps unnecessary. In the Gottschalk case the percipient seems to have been perfectly passive. Mr Thorpe, an actor, received a letter from Mr Gottschalk on arriving at the theatre, where he was playing 'Snake' in *The School for Scandal*. He read it through mechanically, but did not take in a word, as he was very late, and in a great hurry. He dressed, went on the stage, played his part, and came off. A little later he looked for the letter, but could not find it; after much searching he discovered it in the coat of his stage costume. At about the same time Mr Gottschalk, walking along the street some distance away, had a vision of Mr Thorpe's hands drawing the letter out of its envelope. The hands were made-up, and the forearms clad in ruffles like those on the shirt of the stage costume.

Again, and even more clearly, this vision belongs to the agent's mental life. It is one of the very rare cases in which the percipient seems to look through the agent's eyes, seeing what he sees, and contributing nothing of his own. This is a 'lost-object' hallucination, comparable to dreams of the 'solution' type. Like most of them, it looks forward to the moment of finding, as shown by the make-up and the ruffles. Mr Gottschalk's experience was in fact probably not precognitive, but if it had happened to Mr Thorpe instead, one would have expected it to occur a little earlier, during the period of searching; and if it had done so it would have solved his problem. But in fact it was, so to speak, sent to the wrong address, and solved nothing.

As to why it was sent to Mr Gottschalk in particular, this is clear enough. He was closely associated with the missing letter, and knew its contents. In a 'solution' dream he would be the appropriate dream-figure.

The occasion here was trivial. Mr Thorpe's anxiety was neither intense nor prolonged, and one would not normally expect a hallucination to result; but Mr Gottschalk happened to be a sensitive.

In the Gottschalk and Herbert cases, the agent's attention was directed towards the percipient because the latter might be able to help him in his difficulty. His attention was thus divided between the percipient and the subject-matter of the experience. This occurs very commonly, even when there is no problem or anxiety. Mr Rooke, for instance, was reading a phrase in a book at the moment when his wife came into the room; this phrase was later reproduced (in part) by Mrs Rooke when talking in her sleep. Mrs Bedford (a sensitive) had a hallucination of Mrs Gladstone at the moment when the latter was looking over some curtains which she intended to give her. Frau U. and two of her friends were musicians, and had often played together. On one occasion when Frau U. was absent the other two played a Beethoven trio—necessarily leaving out the piano part which should have been taken by her. The idea of Frau U. would thus be associated in the strongest possible manner with the music on which they were consciously concentrating. At the same time she herself, in a distant town, had an impulse to play the piano part of the same trio.

Associations of place, also, may serve to direct the attention. When Miss E. J. McDougall dreamed of rats eating Mr. McDougall's feet, she was occupying the room in which he slept when at home; and he, awakened by finding a rat in the bed, may well have wished himself back in his own bedroom. The same type of orientation—the percipient occupying the agent's usual bedroom—occurs in the Campbell case, and is almost the only clue to it. There is, however, a trace of motive on the percipient's side, in that a captain in the army might be glad to hear of the death of a superior officer, which might give him a chance of promotion.

Associations of time may act in the same way. In the Paget case, it was the duty of the man-servant to turn off the gas punctually at 10.30 p.m. Arthur Dunn had always performed this very exactly. But he fell ill and was taken to hospital, and his successor was not so efficient. Arthur Dunn died at 10.30 p.m., after asking the time (or, according to another account, saying 'I must go and put out the gas'); and at the same moment Mrs and Miss

Paget heard footsteps resembling his going along the passage in their house, as he had always gone at that time to put out the gas.

Gurney mentions that death-compacts, in which it is agreed between two persons that the one who died first shall endeavour to manifest himself to the other, appear to have a certain efficacy. This kind of compact is easily recognizable as a species of orientation. None of Gurney's nine cases have a place in the selected list, but there is one from Si. (Scott). I might also mention the Masters case, in which the percipient was a gentleman who, as Gurney dryly remarks, 'will hardly be accused of excessive sentimentality'. He saw the apparition of 'a young lady with whom I had once kept company for a short time . . . not having seen the girl for quite six months, I had almost forgotten her existence. She died in decline . . .'. Since her attachment to him is believed to have continued, it is not very rash to conjecture that her thoughts were directed towards him at the time of her death.

Another kind of orientation is the preoccupation of the percipient with some close friend or relative from whom he or she has been recently separated, or who is thought to be in a position of danger or difficulty. There are many cases of this (Baxter, Challacombe, Fleming, Freese, Macklin).

Orientation of the agent, of one kind or another, is noticeable in 28 cases, of the percipient in 14 cases, and of both in 2 cases. In the remaining cases we have no information on this point, which of course does not prove that there was no orientation. Some unrecorded train of thought, or some unconscious association, may have directed the attention of one party to the other at the critical moment.

7. Linkage may be defined as the extent of common associations between the parties. It is a permanent or semi-permanent factor, and is mutual, as opposed to orientation which is temporary and may be one-sided. It may be roughly assessed, as is done in P.L., by the relationship of the parties. The classification used here differs somewhat from that in P.L. It is as follows :

1. Husband and wife, parent and child, siblings.
2. Very close friends, engaged couples, etc.
3. Cousins and other relatives.
4. Other friends.
5. Acquaintances.
6. Strangers.

The numbers in each class, for sensitives and non-sensitives, are shown in Table II.

TABLE II. INDIVIDUAL CASE

	Sens.	Non-sens.	Total
1. Close relations	9	22	31
2. Close friends	1	2	3
3. Other relations	2	3	5
4. Other friends	14	20	34
5. Acquaintances	3	4	7
6. Strangers	1	1	2
Totals	30	52	82

It is an obvious hypothesis that weakness in one of the seven factors may be made up for by strength in another. So far, however, there has been little sign of this, and Table II shows no indication of any such relationship between sensitivity and linkage. The proportions in each column are much the same, and a χ^2 test (of 1+2 against 3+4+5+6) gives a result well within the range of chance ($P \approx .25$).

It is obvious *a priori* that some degree of connection between the parties in a telepathic case is necessary; otherwise any sensitive percipient would be continually beset by apparitions and dreams of total strangers from all parts of the globe who happened to be dying or having accidents, etc., at the moment. But it cannot be said that we have solved the problem of what kind or degree of connection is required.

In some cases in which the linkage is weak we can discover a measure of orientation. This is true of the Bedford and Campbell cases, already referred to; also of the Broussiloff case, which in this respect resembles the Campbell case. In the Davy case, the agent had been frequently mentioned, and his state of health commented on, in letters received by the percipient. In the case of Miss F., the dream confused General H.-S., who died at the time and whom she scarcely knew, with his brother General H., who was a great friend of hers. The Nelson case is one of anxiety, and we can almost assume that there was some conscious or unconscious reason to make Mr Sandwith feel that his acquaintance Major Nelson could help him in his difficulty.

The Dickinson case seems at first sight so anomalous that, in spite of the good evidence, one is inclined to reject it as incredible. The apparition walks into a shop at 8 a.m., gives its name to the proprietor (a total stranger), spends some time discussing photographs which have been ordered, and goes out again. The presumed agent, Mr Thompson, was dying at the time. Mr Dickinson, the photographer, later recognised the apparition from Mr Thompson's photograph.

Not only is the linkage in this case almost zero, but the behaviour of the apparition is against all the rules. It stays too long, and speaks too much and too rationally. A closer examination, however, mitigates this impression; the conversation need not have taken more than five minutes, and Mr Dickinson did most of the talking. More important, we find that the latter was subject to nightmares and walking in his sleep, and once saw a borderland hallucination persisting from a dream (which, he said, was also seen by his wife). On the day before the apparition, he had an experience of automatic writing.

Clearly Mr Dickinson was a sensitive. Moreover, he was a very worried man. He was three weeks behind with his work, and one gets the impression of a certain amount of confusion in his business methods. The automatic writing occurred while he was listening to a customer complaining about delay. Later, Mr Thompson's negative was broken in what looks like an unconsciously motivated accident.

Against this background, let us reconsider the hallucination. The 'customer' calls very early, when the staff have not arrived, and Mr Dickinson has no help in dealing with him. He asks for photographs which are not ready, but should be. He himself does not have the receipt which he should have. He looks pale and careworn. He says that he has been travelling all night.

All these details reflect Dickinson's own state of mind—his worry, overwork, and sleep-walking ('travelling all night'). The conversation, though still unusually long and rational, is a reproduction of dozens which he must have had with other customers. The only things which now call for an explanation are the actual veridical points—the name and appearance of Mr Thompson. He, as we find from another statement, was anxious to have the photographs, and spoke of them when he was delirious. There was thus some orientation on his side, and it becomes possible, all things considered, to accept the case.

The solitary case in which the presumed agent is a stranger, and the percipient non-sensitive, is that of Mr Van Deusen, who had a borderland auditory hallucination announcing the death of a young man whom he had never met, the son of a woman with whom he had only a slight acquaintance. I can make nothing of this; but one can scarcely hope to explain every case.

The resultant of all these factors is an experience of varying degrees of vividness or intensity. It is difficult to compare the intensity of a dream with that of a waking experience; but among the latter, it will probably be agreed that hallucinations of sight (with perhaps other senses as well) are the most intense, auditory

hallucinations next, and impressions (including motor impulses, etc.) weakest of all. In Table III, these degrees of intensity are set out in conjunction with sensitivity and with the agent's state.

TABLE III. INDIVIDUAL CASES

<i>Agent's State</i>	<i>Visual Hall.</i>		<i>Auditory Hall.</i>		<i>Dream</i>		<i>Impression, etc.</i>		<i>Total</i>	
	<i>S.</i>	<i>N-S.</i>	<i>S.</i>	<i>N-S.</i>	<i>S.</i>	<i>N-S.</i>	<i>S.</i>	<i>N-S.</i>	<i>S.</i>	<i>N-S.</i>
1	6	10	0	1	2	6	1	3	9	20
2	0	4	0	1	2	2	0	1	2	8
3	2	2	1	2	2	4	1	4	6	12
4	5	0	1	0	6	8	1	4	13	12
<i>Totals</i>	13	16	2	4	12	20	3	12	30	52

By taking χ^2 on the column totals, it will be found that there is no general correlation between intensity and sensitivity. The most clearly significant feature of the table is the difference between death cases and others, but this will be considered later. Setting aside the death cases, we find that, for non-sensitives, the percipient's experience is usually related, both in kind and intensity, to the event.

For instance, when Mrs Rendall at the tennis party wants her shawl, young Rendall does not have an auditory hallucination of her saying so ; he receives an impression that the shawl is wanted. Frau U. does not see apparitions of her two friends ; she has an impulse to play the piano part of the Beethoven trio. Anxieties, fantasies, forgotten sentences and the like produce impressions (de Solla, Hutchinson) or dreams (Herbert, Rooke), but no hallucinations. Even grave illness or accident to the agent does not usually cause the percipient to have a visual hallucination ; there are only two cases (Reddell, Searle), and in one of these (Reddell) the agent was in a dying condition.

The rule does not apply to sensitives. This is understandable. A sensitive may be considered as one who himself supplies a large proportion of the energy required ; he is ready to produce a hallucination, etc., at any suitable moment, and the impulse from the agent need only trigger it off. In the Evens case, for instance, the hallucination took on the appearance of two other people before settling down to represent the agent's father. We might say that Mrs Evens was wound-up to have a hallucination of some sort ; the agent's part was only to determine what sort it should be.

Again, it is understandable that in some cases, especially with non-sensitives, the experience is weaker than the event. This is clearly due to difficulties in transmission. After all, in the great majority of deaths or accidents there is no telepathic experience

at all ; it is not in the least surprising that, when it occurs, it is sometimes weak.

But in applying the rule to this class of case we cannot very well say that a dream or hallucination is more or less intense than, for instance, a railway accident. The rule implies that the percipient's experience is to be compared, not with any objective event, but with a psychical event occurring in the agent's mind. And, in considering the cases from this point of view, we find that there almost always is such a psychical event, of sufficient importance to generate *in the agent himself* an experience similar to, or more intense than, the percipient's.

In many cases this is proved from the fact that the agent *did* have a similar experience. Mrs Rendall, like young Rendall, had a feeling that she wanted her shawl. Frau U.'s fellow-musicians, like Frau U., had an impulse to play Beethoven. Mr Hutchinson, like his young son, had an unaccountable feeling of anxiety about his forthcoming journey. Mr Castle, like Mrs Castle, had a choking sensation in the throat. I may add the cases of shared dreams (Barnard, Gleason), and, by anticipation of the argument of a later section, those of shared hallucinations.

In four of the six cases of auditory hallucination (including the two sensitives, Stone and Russell) the sound heard by the percipient was actually made by the agent, and in three of these it was made in an involuntary manner. Mr Fryer jumped out of a moving train—a practice against which his brother had often warned him. He fell, and involuntarily called out his brother's name, which was heard by the latter some 40 miles away. A relative of Mr Russell (a sensitive) had a disturbed sleep, and woke up calling his name which he heard as a hallucination. In the same way Miss Stent heard her old friend, in a dying condition, calling the name of 'Reggy'. In the fourth case Mrs Stone, a sensitive percipient and also an 'effective' agent, heard her son's voice 'speaking eagerly, as if bothered', when in fact he was annoyed at finding no carriage waiting for him. In the remaining two cases (Harrison, Wyld) it is possible that the agent did make the sound heard by the percipient, though in Harrison's case it is not stated and in Wyld's it could not be known.

In many other cases, although the agent did not have an experience, the percipient's experience is just what we should expect the agent to have. This applies above all to dreams. Mr Sandwith, for instance, worrying about one of his parishioners marrying a German, might well have had a dream on the subject, instead of which his acquaintance Major Nelson did so. The Herbert case is another of the same kind, and so is that of Mrs C. The odd little

incident of the loan of twopence (anon., L836) is also just the kind of stuff that dreams are made of. Particularly vivid and realistic dreams are often produced by shock; Mr Fleming's riding accident produced just such a dream, not in him but in his wife. The Porter, Pierce, and Clarkson cases are similar, and Mr Sladen's dream about the fire in his father's house has an almost equally adequate motivation. The Edmunds case is peculiar, and could almost be rejected as experimental; the face seen in the percipient's dream was one which the agent was trying to make appear as in crystal visions, though he had no intention of transmitting it. Here again if the agent had had a dream such as actually occurred to the percipient it would not have been at all surprising.

Among cases where the percipient's experience is less intense than that which we might expect the agent to have, I may mention that of Archdeacon Bruce, who paused in walking through a street and said to a Bovril advertisement: 'You ugly brute, don't stare at me like that; has some accident happened to the wife?' She had in fact had an accident with a carriage. Similarly the hunting accident of Mrs H.G.B.'s friend produced in her no more than a vivid mental picture, and Mr Maclean's narrow escape from shipwreck produced in his twin brother only a vague feeling that he was in some danger.

Altogether, of 23 cases with non-sensitive percipients (excluding death cases), 20 are consistent with the hypothesis that an actual or potential experience of the agent is transferred to the percipient. In the remainder the experience seems disproportionately intense. One would scarcely expect that reckoning up a number of passengers on a ship would give rise to a dream (Thomas), or that reading a description of a dog in a story would produce a vivid mental impression (de Solla), or that a shock caused by seeing an accident, which caused a woman to faint, would also cause a visual hallucination (Searle). But it is a matter of degree; these cases, though they give no support to the hypothesis, do not very definitely contravene it.

We turn next to the death cases. The two classes—violent and non-violent death—are perfectly homogeneous, and quite different from other cases. The proportion of visual hallucinations is much larger;¹ in fact, out of a total of 16, 14 (or 15 if we include the Reddell case) are connected with deaths. Waking impressions are fewer; dreams and auditory hallucinations are neutral. These tendencies can be seen even when the sensitives and others are lumped together, but come out much more strongly when the

¹ A similar effect in cases of precognition was noted by H. F. Saltmarsh (*Proc. S.P.R.*, xlii, 99).

non-sensitives are taken separately. We then find (omitting the auditory hallucinations, which are too few for a χ^2 test, and taking all death cases against all others) a χ^2 figure of 10.87, with 2 d.f., giving $P \approx .004$.

If the rule which has been established for other cases holds good, we must suppose that death is associated with a psychical experience of extraordinary intensity. This hypothetical experience has nothing to do with visions seen while drowning, death-bed delirium, etc. ; it is connected with the simple fact of death, not with the manner of it.

I may say that this result came as a complete surprise to me. I had supposed that death was merely the extreme case of illness or injury, and that the cases of violent death, for instance, would be somewhat similar to those of non-fatal accident. One person is thrown from his horse, or falls into the sea, and dies ; another has a similar misfortune, but survives ; why should the psychical effects differ greatly? Yet the tables show that they do.

The point is of the first importance, and should be checked by every possible method. I have therefore gone back to the main collections, and taken every case of violent death or serious non-fatal accident listed in them. The result (omitting sensitives) is as follows :

TABLE IV. ALL CASES IN P.L., ETC. (EXCLUDING SENSITIVES)

	<i>V. Hall.</i>	<i>A. Hall.</i>	<i>Dream</i>	<i>Imp.</i>	<i>Total</i>
Violent Death	48	8	22	7	85
Non-fatal Accident	11	6	14	18	49
Totals	59	14	36	25	134

A χ^2 test gives a figure of 22.03 with 3 d.f., $P \approx .0003$.

Is this result due to a statistical artefact of some kind? It has already been said that the collections are biased in favour of death cases and in favour of hallucinations. This may account for the large number in the top left-hand corner of the table, but not for the proportionately larger departure from expectation in the opposite corner. It might be suggested that the investigators, consciously or unconsciously, held the theory that there was some correlation between deaths and hallucinations and between impressions and non-fatal accidents, and tended to accept as evidential cases favouring this view and to reject others. There is undoubtedly a possibility of this. The estimation of evidential value cannot be done mechanically according to a set of rules, and it is very easy for bias to creep in. But we are able to make a test of this. About half

of P.L. consists of a Supplement containing cases judged to be of lower evidential value. If there is any bias, it should operate as between the Supplement and the main work. Subdividing Table IV on this basis, we find :

TABLE V. SOURCES FOR TABLE IV

	<i>Violent Death</i>				<i>Non-fatal Accident</i>			
	<i>V.H.</i>	<i>A.H.</i>	<i>D.</i>	<i>I.</i>	<i>V.H.</i>	<i>A.H.</i>	<i>D.</i>	<i>I.</i>
P.L., Main Work	11	7	5	4	7	2	5	8
P.L. Supplement	29	1	11	1	4	0	3	3
Si., etc.	8	0	6	2	0	4	6	7
Totals	48	8	22	7	11	6	14	18

It can be seen that the same trend appears in all three sets of data, and is in fact more pronounced in the Supplement. This might be taken to mean that the hypothetical theory producing the bias was held, not by the collectors, but by their informants. But these are a very miscellaneous group ; and it does not seem likely that a theory which is so far from obvious that it is not mentioned by any of the early investigators should have occurred spontaneously to some hundreds of people not specially interested in the subject, and mostly unknown to each other.

All the evidence is therefore in favour of the view that death cases differ qualitatively from others. The difference must consist in some intense psychical experience occurring to the agent at or after the moment of death ; for, up to this moment, the agent's condition of mind does not differ from that in a non-fatal case. (The time of the percipient's experience does not prove anything, for it may be pre- or retrocognitive.) Can we tell anything about the nature of this experience?

Our only clue, since we cannot question the agent, is the experience of the percipient. We have analysed this in respect of intensity ; let us now reconsider it in respect of the information conveyed. This may be classified as follows :

1. No information ; an unrecognized figure is seen, or a noise heard, and the only connection with the agent is the coincidence of time.

2. The agent is identified, but nothing is conveyed beyond the bare identity.

3. Details of the agent's appearance, etc., previously unknown to the percipient, are given.

4. Some information is given about the agent's thoughts, or

about events—e.g. the details of an accident—which may be presumed to be occupying his thoughts at the time.

Table VI refers to all individual cases, including sensitives, who on this point do not differ significantly from others.

TABLE VI. INDIVIDUAL CASES

	<i>Deaths</i>		<i>Others</i>		<i>Total</i>
	1	2	3	4	
1. Unrecognized	4	2	0	0	6
2. Recognized	19	5	1	0	25
3. Details	2	0	1	2	5
4. Thoughts	4	3	16	23	46
Totals	29	10	18	25	82

This distribution is obviously not due to chance, but it *is* due, in part at least, to selection. Mrs Sidgwick says that 'except in cases of very definite crisis . . . some correspondence in detail is usually required'. But there is no indication that cases without sufficient detail have been rejected by the hundred, as would be necessary if this were the only factor influencing the distribution. Again, an accident is a very definite crisis, and accident cases would not be rejected for lack of detail; but the accident cases follow the same pattern as the other non-fatal cases. It is particularly remarkable that we have 6 detailed dreams or visions of non-fatal accidents (H.G.B., Clarkson, Fleming, Freese, Pierce, Porter) and only 2 of deaths (Storie, Rider Haggard). We must take it as a fact of nature, not as an accident of selection, that the typical death case simply presents the figure of the agent, recognized or unrecognized, whereas in other cases the percipient's experience represents what the agent was thinking about at the time. Unless there is some new, unknown factor in death cases, we can only suppose that in such cases the agent is thinking about himself.

This will be, to many, an unexpected and indeed unwelcome conclusion. It is usually supposed that the dying agent's thoughts turn towards the percipient. But we have already found reason to suppose that at the material time the agent was not merely dying but actually dead, which must greatly alter our views on his mental state. In the non-fatal cases, again, the agent is not usually thinking of the percipient. He may be oriented towards him, but that is a different matter. Mr Thorpe, for instance, was oriented towards Mr Gottschalk, but he was not thinking about him; he was thinking about his lost letter. Similarly in a death case the agent is thinking about his lost 'self'.

The word 'self' is used here in the Serialist sense, meaning the first-term observer. The present paper is not a very appropriate place to go into the theoretical side of the question, but if we take the first-term 'self' as roughly equivalent to the body it is easily seen that, to a dead man, the body is a 'lost object' of the utmost importance. His efforts to regain contact with it may therefore be expected to produce phenomena of the same general type as occurred in the Gottschalk case. His attention will be directed partly towards the lost body, and partly towards persons or places associated with it. It follows that an image of the body is seen by those persons, and especially in those places.

As in most lost-object cases, the body is not usually seen as it was at the time of losing, i.e. at the moment of death. The apparition is generally dressed in its ordinary clothes, and engaged in everyday activities. Mrs A. is seen driving in her carriage with one of her children (E.L.S.); Lieut. McConnell comes in to tea, saying that he has had a good trip (Larkin); Mr Kelsey walks into Mr Marchant's room and stands looking into a hand-mirror; Charlotte Cox's friend Susan, 'dressed in her bonnet and mantle, looking quite natural', is welcomed back, in the dream, by the mistress of the house. These cheerful, commonplace figures, who do not know that they are dead, contrast strongly with the shrouded and purposeful ghosts of fiction.¹

The death cases also resemble the lost-object cases in that the object, i.e. the body, is seen in good condition. It is decidedly rare for it to show signs of illness or injury. Mrs Baxter's sailor brother, who was killed in action, appeared first 'happy and singing' with his shipmates, and then home on leave. In the Whiting case, the dream-figure looked younger than the real woman. References to the apparent happiness of the apparition or dream-figure are much commoner than the reverse.

Some of these effects may be due to 'dream-work' by the percipient; but there is no reason why this should not work in the opposite way, producing horrific warning figures like the Beresford

¹ A very typical specimen of the traditional type, with a better evidential basis than most, is the McQueen case, *J.* vi 179. The figure of Mrs Madden was dressed in graveclothes; she said, 'I am the spirit of Mary Madden, and bespeak your attention', and proceeded to tell McQueen to communicate with her husband and warn him to desist from a certain evil course he was pursuing. As proof of identity, she then reminded McQueen about certain private matters known only to themselves. The date of the case is 1839, and the account was written in 1854 from notes taken at the time. The grave-clothes, the apparition's knowledge of its condition, its declaration of motive, and proof of identity, are features which certainly do not occur nowadays in well-attested cases.

ghost. This type is almost always fictitious. On the whole, although other hypotheses may explain some of the phenomena, the only theory which covers them all is that the apparition or dream results from the agent's search for a lost body. From the fact that the percipient's experience usually takes the form of a hallucination, we may conclude that a similar hallucination occurs to the agent.

This is partly confirmed and partly contradicted by the 'out-of-the-body' cases, many of which are on record.¹ In these, the subject is at the point of death through illness or accident. He seems to himself to become double, and to be looking at his own body from some distance away. These cases are similar to the death cases, in that the subject's body is the centre of interest ; but they differ in that the body is always seen as it actually is at the time, and in its real surroundings. We may perhaps conjecture that this is the first stage of the experience, and that it is followed (in some cases at least) by other visions of the body derived from earlier periods of the subject's life.

Since this hypothetical later phase is not represented in any of the 'out-of-the-body' cases, it presumably occurs after death ; but it should be added that 'after' refers to Time 2. Continued consciousness in Time 1 would, in Serialist theory, be impossible without the first-term 'self', and it is precisely the loss of this which produces the effects. The agent cannot be expected to know anything about events taking place after his death in Time 1 ; and knowledge of such events is not shown in any of the selected cases.

If these ideas are correct, it follows that the cases under consideration cannot properly be described as 'phantasms of the living'. The possibility of this was of course present to the minds of Gurney and his colleagues, but they very rightly proceeded on the principle of taking one step at a time. An unfortunate by-product of their decision, however, has been the splitting of the death cases into two or three sections. Apparitions, etc., occurring close to the time of death have been carefully investigated, while those occurring before or after have aroused less interest, and there is no large collection of them to compare with P.L. or Si. The latter works, however, contain a few such cases ; they owe their inclusion to the fact that the experience happened to be shared by two or more percipients. Gurney argued that, whether the experience was veridical or not, the fact that it was shared indicated an element of telepathy, and that the cases therefore provided some evidence for telepathy.

¹ Five are given in the *Journal*, xxxiv, 1948, 206-11.

This brings us to the subject of collective cases—a subject which has always been productive of controversy. Gurney held that hallucinations, whether veridical or otherwise, might be passed on from one percipient to another.¹ Myers objected that some regular types of subjective hallucinations—‘truncated forms, definite inanimate objects, or patterns’—were never shared, that hallucinations of the insane were never shared, and that the subject-matter of collective hallucinations was always of the same type as that of individual veridical hallucinations.² Tyrrell objected that in a typical collective case all the percipients see the same figure, each in its appropriate aspect; and furthermore that the experience is shared by anyone who happens to be on the spot, whether or not he is acquainted with the agent or the other percipients.³ It seems impossible that telepathic transmission could produce so perfect an imitation of a material figure as this.

Myers’s statement as to the subject-matter of collective and individual cases needs qualification; the Gottschalk case, for instance, presents us with both a truncated form and a definite inanimate object, and there are others in P.L. and elsewhere. In any case, as he himself admitted, the argument is not a very weighty one. Tyrrell’s objections are more substantial; but his conception of the typical collective case does not rest on so wide an evidential basis as might be supposed. There are 35 collective cases in the selected list, and in 4 of these I find that the details seen by the various percipients differed to a greater or less extent; in 11 the experiences were quite separate, occurring at different times and places, or affecting different senses; 5 were auditory hallucinations, where the question does not arise so emphatically; in 9 the percipients shared a common viewpoint; and in the remaining 6 cases nothing is said about aspects. The degree of congruity between the various experiences does not usually go beyond what might be conveyed telepathically in such a simple message as ‘Mr Hasted at the end of the road’, ‘Mrs Robinson looking in at the window’, etc. But if a greater degree of congruity exists, it is, as will be shown, explicable.

As to the participation of casual bystanders, among the 85 percipients in the 35 cases there are only 2 who were strangers to the agent, and these were friends of other percipients. The impression as to strangers must therefore rest on the authority of the older and less evidential cases, since no collective case has been excluded from my list for other than evidential reasons; but even among

¹ P.L., II, 183 ff.

² P.L., II, 282.

³ *Apparitions* (new ed. 1953), pp. 69–70.

these it would be hard to find many percipients who could be described as casual strangers.

The arguments advanced in previous sections of the present paper tend to support Gurney's view. If they are correct, the transference of a hallucination or other experience is the fundamental process in *all* spontaneous telepathy. In fact, if collective non-veridical hallucinations did not occur, it would be a serious objection to this theory. We know that physical sensations can be telepathically transferred (Castle); so can phantasies and mental pictures (Herbert, Edmunds); and parent-images (Evens, Reddell); and non-veridical dreams (Barnard, Gleason); and baseless anxieties (Hutchinson). Why should subjective hallucinations be an exception to the general rule?

Among cases which suggest a subjective origin, the following may be mentioned: (Alderson) A woman in black, and a cross, seen by three people; the details differed. The figure remained for nearly an hour—almost the longest time on record. (Smith) A vague figure seen by two people in a drawing-room while playing music. (Lady C.) An angel, seen by one person and heard by another. (McCaskill) A tall white figure seen by two young women, one of whom had been told that the room was haunted.

In a second class of possibly subjective cases, the figure was recognized, but there are various reasons for thinking that the apparent agent was not really acting as such. In the Bourne, Clapham, and Milman cases the supposed agent was in a perfectly normal state at the time; in the Atkinson and Green cases a 'ghost' was seen by a sensitive who had seen other (probably non-veridical) apparitions; and the Holborn case, as already mentioned, is one of a parent-image.

In many cases it is possible to distinguish a primary percipient, who, on Gurney's theory, acts as agent for the other percipients. Thus, in the McCaskill case referred to above, it was Miss 'L.V.' who was told the story about the ghost which appeared on that night every ten years, and it was Miss 'L.V.' who was the first to see the figure, and the most affected by it. Similarly in the Atkinson case, Miss Atkinson's emotion was much less than that of her friend, who came of a 'highly nervous, hysterical family' who had been 'haunted' by apparitions of Dr ——. In such cases as these, if the primary percipient had been the only one to have the experience, it would have been classed without hesitation as subjective. But it is also possible to distinguish a primary percipient in other cases in which an external agency is less doubtful. In the Robinson case, for instance, three maidservants saw the face of a Mrs Robinson looking in at the window. She had been an

incurable invalid for some years, and after her death one of the percipients, 'Helen', married Mr Robinson. There was thus for Helen a much greater importance attached to the first Mrs Robinson's death, and hence a greater degree of orientation than for the others. Altogether there are about 10 cases in which a primary percipient can be distinguished.

On the other hand, the similarities between the experiences of different percipients, though not so close as is generally supposed, are still too close to be fully accounted for on Gurney's theory. Other points which call for explanation are the smaller proportion of sensitives in collective cases (see Table I), the high proportion of hallucinations, and the frequency with which the percipients are together at the time of their experience.

A table showing the last two factors will be helpful. Dreams, and State 1, are omitted, since there is no point in proving that people tend to have dreams when asleep. Sensitives are included; reciprocal cases are omitted.

TABLE VII. ALL CASES EXCEPT DREAMS

Percipient's state	<i>Individual</i>			<i>Reciprocal</i>			<i>Collective</i>		
	2	3	4	2	3	4	2	3	4
Visual hallucinations	14	11	4	2	2	2	10	11	37
Auditory hallucinations	4	2	0	2	0	0	5	6	5
Impressions	4	5	6	0	0	0	0	2	2
Totals	22	18	10	4	2	2	15	19	44

With individual cases, there is a marked deficiency of hallucinations in State 4. With collective cases, the corresponding cell is full to overflowing. The obvious inference is that cases of this kind tend to turn into collective cases; in other words, that a hallucination seen by a percipient in company with other persons has a tendency to spread.

Again, Table I shows that whereas in individual and reciprocal cases about one-third of the percipients are sensitives, in collective cases the proportion is only about one-fifth.¹ This effect is due entirely to the cases of visual and auditory hallucination; in these there are 12 sensitives to 63 others. It is likely that the enquiries made on this point are not so exhaustive in a collective as in an individual case, but even allowing for this there remains a strong

¹ By the χ^2 test this difference falls below the conventional significant level ($\chi^2 = 5.36$, 1 d.f., $P \approx 0.02$); but that is not sufficient reason for ignoring it, when a reasonable explanation is ready to hand.

suggestion that it is easier to be a percipient of a collective hallucination than any other kind of percipient.

The fact that the percipients are so often together at the time may be explained as due to orientation. Two persons who are together, often in conversation, are oriented towards each other in a high degree. This conclusion is confirmed by the cases in which the experience was not shared by someone who was present ; it is usually found that such a person was not oriented towards the percipient. Mme Broussiloff's vision of Colonel av Meinander was not shared by the others in the room who were carrying on a gay conversation, while she was writing accounts. Miss E.L.S.'s vision of Mrs A. was not shared by her coachman. Mr N.J.S., when he saw the apparition of Mr F.L., was resting on a couch ; his wife, who saw nothing, was in the room, but was occupied with something else. The same consideration will account for the remarkable infrequency of collective dreams ; one is seldom less oriented towards others than when asleep.

The remarkable ease of spread of a collective hallucination is not explained by the theories of Gurney, Myers or Tyrrell. Another theory, put forward not long after those of Myers and Gurney, here claims our attention. It is that of Podmore, who wrote : 'It is conceivable also that in certain cases of collective hallucination the effect may really be a reciprocal one, the two persons concerned simultaneously affecting and being affected by each other, until the force so generated explodes into hallucination.'¹

Podmore's characteristic caution limited his theory to 'certain cases', but in my view no such limitation is necessary. It has already been shown that one experience tends to generate another ; and, in favourable conditions of orientation, the second experience must react on the percipient of the first. In modern terms, a state of positive feed-back obtains—the effect reacting on the cause in such a way as to produce an increased effect. This is precisely what is required for an explosion ; Podmore's description is brilliantly accurate.

This theory accounts both for the high proportion of hallucinations, and for the low degree of sensitivity required ; ; the feed-back increases effective sensitivity and produces an effect of greater intensity. It also accounts for the congruity of the different experiences, since any difference between them would not be fed-back, and hence would tend to be corrected during the building-up.

It may be objected that this building-up would take time ; but time is the least of our difficulties. An 'explosion' of this nature is

¹ *Apparitions and Thought Transference* (1894), p. 301.

very rapid, and indeed the whole process may happen in 'Time 2', since it is altogether a second-level affair, comparable with dreams; in dreams, as everyone knows, the time-factor is very elastic.

It may be asked, again, why it is that every case is not built up to hallucinatory strength. The answer is that every case in which the percipients were together was so built up, except that of Mr and Mrs Saunders. Here both parties were sensitives, and the event—the marriage of two friends—was slight. In almost every other case the event was either a death or a subjective hallucination; in the two exceptions (Blaikie, Earle) one percipient was a sensitive. It seems as though a collective case must be 'detonated' by a primary experience of a certain minimum intensity. If so, the Saunders case was not truly collective, and the impressions of the two percipients were independent of one another. The same might apply to a few cases (Bettany 2, M.L.B., Bruce, Lawson) in which one or more of the percipients were dreaming.

Another objection to Podmore's theory lies in the existence of reciprocal cases, in which each percipient is the subject of the other's experience. How, it may be asked, can this be reconciled with the idea of the building-up of a common experience?

The question arises most insistently in the Green and Pierce cases. In each case one party had an accident, and each had a hallucination of the other. In the Green case the two hallucinations occurred on the day after the accident; in the other case they were simultaneous with it.

I cannot fully explain these cases, but they may be approached along a line which starts from the Barnard and Gleason cases. These present little difficulty. Young Barnard, a schoolboy, dreamed that he wanted to put his head on his mother's shoulder, but could not because the baby got in the way. His mother had the same dream. This is a type of dream common enough among elder children, and Mrs Barnard, a sensitive, seems to have picked it up and reproduced it without adding anything of her own. The dream shared by Dr Adele Gleason and Mr Joslyn is again of a not uncommon type. They dreamed that she was in the woods alone, that she became frightened, and that he then came and shook a bush which was growing nearby, so that the leaves fell off and turned into flame. This is an erotic symbol, as the poets know:

A woman is a branchy tree
And man a singing wind;
And from her branches carelessly
He takes what he can find.

The only question is whether such a symbol would occur more naturally in a woman's dream than in a man's. I should say that

it is more likely to have originated with the woman. But Mr Joslyn also seems to have contributed something, because the place in the woods which was the scene of the dream was known to him and not, apparently, to her. We have in this case, then, the process postulated by Tyrrell, but not frequently observable—a collaboration between the two dream ‘dramatists’ to produce a joint work.

The same is true of the interesting ‘Bessie’ case, in which a woman dreams of revisiting a friend whom she had left hurriedly and secretly, and of saying to her ‘Bessie, let us be friends’. ‘Bessie’ had, not a dream, but a hallucination which corresponded. The Pagan case is of similar pattern, but here both experiences were probably hallucinations. Miss Elizabeth Pagan, who was ill in bed, woke up and heard herself say ‘I am all right now, thanks, Belle’, and saw a shadowy figure of her sister Isabelle. During the same night Isabelle had a vision of Elizabeth in pain.

In these four cases we find, not a common experience, but a common drama in which each person has his appropriate part. In the Pagan case the drama survives only as a sketchy background to the two hallucinations ; each percipient selects the part which most interests her and almost ignores the rest. Moving a little further along the same line of development, we find the Steele case, in which the drama has vanished entirely, but can be supplied from the analogy of the Pagan case. Mr Burgess, who seems to have been elderly and infirm, had recently left Miss Steele’s private hotel, where he had lived for years. He woke one night and saw a hallucinatory figure of Miss Steele ; at the same time she dreamed that she heard him calling.

Returning to the Pierce and Green cases, is it not possible that in them too the apparently separate apparitions were underlaid by a common drama which never reached consciousness? The interaction between the percipients would consist in the rapid sketching-out of this drama and the raising of a portion of it to hallucinatory strength. But this is of course very hypothetical ; and, with so few cases to work from, it is not possible to be more definite.

APPENDIX I SELECTED CASES

The various factors are indicated as follows :

1st column. Percipient non-sensitive (N) or sensitive (S) ; his state (see text, p. 291).

2nd column. Agent normal (N) or ‘effective’ (E) ; his state (see text, p. 293).

3rd column. Linkage (see p. 296).

4th column. VH—visual hallucination; AH—auditory hallucination; D—dream; I—impression, motor impulse, etc. Degrees of information (see p. 303).

The P.L. references are to case number, volume and page; the Si. references to page number. Other references are to the *Journal* and *Proceedings* of the Society, Myers's *Human Personality* (H.P.), Podmore's *Apparitions and Thought Transference* (Pod.), and the Society's case numbers.

I. INDIVIDUAL

	PERC.	AG.	LINK.	EXP.
ANON. L 836, Si. 314, J. iv 221.	N1	N4	1	D4
H.G.B. P.L. 63, I 263.	N3	N3	4	I4
Mr B. P.L. 199, I 534.	N2	N2	4	VH2
BALE. P.L. 236, II 52.	N3	N2	1	VH1
BANISTER. P.L. 79, I 283.	N4	N1	1	I2
BAXTER. L 1204, Si. 190, J. xvii 204. (Possibly dream)	N2	N2 [*]	1	VH4
BEDFORD. P.L. 261, II 93.	S4	N4	5	VH4
BROUSILOFF. L 991, Si. 210, J. vii 121.	S4	N1	5	VH2
BRUCE. L 961, Pod. 51, J. vi 163.	N3	N3	1	I4
Mrs C. L 1168, Si. 332, J. xiii 153.	N1	N4	4	D4
CAMPBELL. L/t 322, Pod. 57, J. iii 254.	N1	N1	5	D2
CASTLE. L 1102, Si. 94, J. viii 298.	N3	N3	1	I4
CLARKSON. L 992, Si. 280, J. vii 125.	N1	N3	4	D4
COOMBS. P.L. 180, I 439.	N2	N1	3	VH2
CORDER. P.L. 93, I 317. (Hypnotised)	S1	N4	1	D4
CORIOLANUS. P.L. 103, I 330.	S1	N1	4	D2
COX. L 1179, Si. 195, J. xiv 295.	N1	N1	4	D2
CRELLIN. P.L. 96, I 332. (Mrs C. taken as agent)	S1	N4	1	D4
DAVY. P.L. 45, I 243.	S4	N1	5	I2
DICKINSON. L 892, H.P. I 675, J. v 147.	S3	N1	6	VH4
DUTHIE. P.L. 172, I 430.	N2	N1	2	VH2
EDMUNDS. L 1173, Si. 323, J. xiii 328.	N1	N4	4	D4
EVENS. P.L. 311, II 176. (Hypnotist taken as agent)	S2	N4	2	VH4
Miss F. L 1180, Si. 237, J. xiv 327.	N1	N1	5	D2
FLEMING. P.L. 109, I 339.	N1	N3	1	D4
FRESE. P.L. 123, I 355.	S1	N3	1	D4
FRYER. P.L. 268, II 103.	N3	N3	1	AH4
Miss G. L 978, Si. 213, J. vi 368.	N1	N1	1	D3
GOTTSCHALK. P.L. 220, II 31.	S3	N4	4	VH4
GOWER. L/t 325, J. iii 268.	N4	N1	3	I1
GRIEVE. L 1156, Si. 340, J. xiii 27.	S3	N4	4	VH3

	PERC.	AG.	LINK.	EXP.
GRIFFIN. P.L. 702, II 703. (Dream followed by hall. Counted as hall. in tables)	N1 } N2 }	N1	4	{D VH4
HARRISON. L 875, Pod. 54, J. v 63.	N2	N3	1	AH4
HERBERT. P.L. 97, I 322.	N1	N4	4	D4
HOARE. P.L. 99, I 325.	S1	N3	4	D4
HUTCHINSON. L 1186, Si. 101, J. xv 188.	N2	N4	1	I4
JARRY. P.L. 46, I 244.	S2	N3	1	I4
JENOUR. P.L. 182, I 441.	S2	N1	4	VH2
JONES. L 1191, Si. 317, J. xv 337.	S1	N4	4	D4
KEARNE. L 982, H.P. I 672, J. vii 25, Tyr. 29.	S3	N3	4	VH4
KEULEMANS. P.L. 184, I 444. (Two experiences)	S2 } S4 }	N1	1	VH2
LARKIN. L 1226, Si. 152, J. xix 76.	N3	N2	4	VH2
E.M. L 831, Si. 104, J. iv 179.	S2	N4	4	I4
McDOUGALL. P.L. 104, I 331.	S1	N4	3	D4
MACKLIN. L 1220, Si. 199, J. xix 3.	N1	N2	1	D2
MACLEAN. P.L. 78, I 283.	N4	N3	1	I2
MANN. L 1147, Si. 196, J. xii 99.	S1	N1	4	D3
MARCHANT. P.L. 26, I 207.	N2	N1	4	VH2
MARTYN. P.L. 26, I 207.	N3	N1	3	I1
MASTERS. P.L. 241, II 59.	N3	N1	4	VH1
NELSON. L 1183, Si. 325, J. xv 17.	N1	N4	5	D4
C.P. P.L. 174, I 431.	N2	N1	5	VH2
PARKER. L 1199, Si. 126, J. xvi 203. (Mrs C. taken as agent)	N4	N2	4	I2
PIERCE. P.L. 135, I 373.	N1	E3	1	D4
PORTER. L 1165, Si. 282, J. xiii 136. (Two dreams)	N1	N3	1	D4
RAWLINSON. P.L. 27, I 209.	N3	N1	4	VH2
REDELL. P.L. 30, I 214. (Dying woman taken as agent)	N3	N3	4	VH4
RENDALL. L 893, Si. 109, J. v 172.	N3	N4	1	I4
RIDER HAGGARD. L 1139, Si. 219, J. xi 278. (Dog agent)	S1	N2	4	D4
ROOKE. L 1196, Si. 99, J. xvi 76.	N1	N4	1	D4
RUSSELL. P.L. 694, II 692.	S2	N3	3	AH4
E.L.S. P.L. 202, I 544.	N4	N1	4	VH2
N.J.S. P.L. 28, I 210.	N4	N1	4	VH2
SAUNDERS. P.L. 116, I 347.	S1	N4	4	D4
SCOTT. L 974, Si. 205, J. vi 280.	S2	N1	4	VH2
SEARLE. P.L. 222, II 35.	N3	N3	1	VH3
SLADEN. P.L. 98, I 324. (Father taken as agent)	N1	N4	1	D4
DE SOLLA. L 1000, Proc. xiv 286.	N4	N4	1	I4
STENT. P.L. 158, I 413.	N2	N1	2	AH4

	PERC.	AG.	LINK.	EXP.
STONE (agent). P.L. 257, II 85.	S ₃	E ₄	4	VH ₃
STONE (perc.). P.L. 267, I 102.	S ₃	N ₄	1	AH ₄
STORIE. P.L. 134, I 370.	S ₁	N ₂	1	D ₄
THOMAS. L 1228, Si. 315, J. xix 138.	N ₁	N ₄	4	D ₄
FRAU U. L 1131, Si. 110, J. xi 80.	N ₂	N ₄	4	I ₄
VAN DEUSEN. L 976, J. vi 284, Proc. xi 367.	N ₁	N ₁	6	D ₂
WARD (1). L 1088, Si. 255, J. viii 78.	S ₂	N ₃	1	VH ₄
WARD (2). L 1088, Si. 255, J. viii 78.	S ₁	N ₄	1	D ₄
WHITING (reporter). L 973, Si. 216, J. vi 249.	N ₁	N ₁	1	D ₄
WILLIAMS. P.L. 179, I 437.	N ₂	N ₁	4	VH ₂
WINGFIELD. P.L. 23, I 199.	N ₁	N ₂	1	D ₂
WOODHAM. P.L. 189, I 451.	S ₂	N ₁	4	VH ₁
WYLD. P.L. 282, II 116.	N ₂	N ₂	4	AH ₁

(Detail taken as non-veridical)

2. RECIPROCAL

In these cases the factors are indicated in the same way as in individual cases, except that it is not usually possible to say which of the parties is the primary agent. The second column is therefore usually blank, and the third indicates linkage between the two percipients.

	PERC.	AG.	LINK.	EXP.
BARNARD. L 1188, Si. 415, J. xv 262.				
F. Barnard	N ₁			D ₄
Mrs Barnard	S ₁		1	D ₄
'BESSIE'. P.L. 306, II 159.				
Mrs Smith	N ₁			D ₄
'Bessie'	N ₄		4	VH ₄
GLEASON. L 986, Si. 417, J. vii 104.				
Dr Adele Gleason	N ₁			D ₄
Mr Joslyn	N ₁		2	D ₄
GREEN. L 1150, Si. 395, J. xii 193.				
Mrs Green	S ₃	N ₃		VH ₂
Mr Ward	N ₂		4	AH ₂
PAGAN. L 1149, Si. 407, J. xii 173.				
Elizabeth Pagan	S ₂			VH ₄
Isabelle Pagan	N ₂		1	VH ₄
PIERCE. P.L. 304, II 157.				
Miss McGregor	N ₃	E ₃		VH ₃
J. M. Pierce	S ₄		2	VH ₂
STEELE. L 1187, Si. 399, J. xv 259.				
Miss Steele	N ₁			D ₂
Mr Burgess	N ₂		4	AH ₂

3. COLLECTIVE

A fifth column has been added, to show linkage to the first-named percipient (the primary percipient, if distinguishable) as well as to the agent. The two columns relating to the agent must often be left blank.

	PERC.	AG.	LINK. to A of P's		EXP.
ALDERSON. G/t 315, J. iii 252, Pod. p. 268.					
Jane S. Alderson	N ₃				VH
E. H. Alderson	N ₄		1		VH
Miss Jowett	N ₄		4		VH
ATKINSON. G 245, J. vi 230, H.P. II 358.					
Friend	S ₄				VH
Miss F. Atkinson	N ₄		4		VH
LADY B. G 241, Si. 363, J. vi 145.					
Lady B.	N ₂				VH
Miss B.	N ₂		1		VH
Miss D.B.	N ₂		3		AH
M.L.B. L 1138, Si. 271, J. xi 269.					
M.L.B.	S ₁	N ₂	1		D ₄
H.M.B.	N ₂	N ₂	1	1	AH ₂
BARBER. G 230, Si. 372, J. vi 22.					
Mr Barber	S ₄				VH
Mrs Barber	N ₄		1		VH
BETTANY (1). P.L. 323, II 204.					
Mrs Bettany	S ₂				VH
Mr Bettany	N ₂		1		VH
Child	N ₄		1		VH
BETTANY (2). P.L. 309, II 173.					
Mrs Bettany	S ₃	N ₁	6		I ₂
Mrs Went	S ₁	N ₁	6	4	D ₂
BOURNE. L 958, H.P. I 651, J. vi 129.					
Miss H. M. Bourne	S ₄				VH
Miss L. Bourne	N ₄		1		VH
Coachman	N ₄		4		VH
BLAIKIE. L 1106, Si. 411, J. viii 319.					
Miss J. L. Blaikie	S ₃	N ₃	1		AH ₂
Miss F. Blaikie	N ₃	N ₃	1	1	AH ₂
Mary B.	N ₄	N ₃	4	4	AH ₂
Isabella C.	N ₄	N ₃	4	4	AH ₂
Jane D.	N ₄	N ₃	4	4	AH ₂
BOWYER-BOWER. L 1223, Si. 167, J. xix 39.					
Mrs Spearman	N ₄	N ₂	3		VH ₂
Child	N ₄	N ₂	3	3	VH ₂
Mrs Watson	N ₃	N ₂	4	4	I ₂
BRUCE. P.L. 144, I 384.					

	PERC.	A.G.	LINK.		EXP.
			to A	of P's	
Dr Bruce	N ₁	N ₂	4		D ₄
Mrs A. Stubbing	N ₁	N ₂	1	4	D ₄
LADY C. P.L. 319, II 199.					
Lady C.	N ₂				VH
Miss Z.T.	N ₂			4	AH
CANT. P.L. 319, II 199.					
Dr Cant	N ₃				VH
Clergyman	N ₄			4	VH
CLAPHAM. L 1181, Si. 359, J. xiv 381.					
Mrs Clapham	N ₂				VH
Child	N ₁			1	D
DALISON. L 1050, J. iv 191.					
Miss Anna M. Dalison	N ₄	N ₁	4		VH ₂
Miss Kathleen V. Sinclair	N ₄	N ₁	4	4	VH ₂
J. A. Hind	N ₃	N ₁	4	?	VH ₂
DU CANE. G 201, Si. 367, J. v 223.					
Louisa Du Cane	N ₄				VH
F. A. Du Cane	N ₄			1	VH
C. A. Du Cane	N ₄			1	VH
MR & MRS E. L 1169, Si. 379, J. xiii 210.					
Mr E.	N ₄	E ₄	4		VH ₂
Mrs E.	N ₄	E ₄	4	1	VH ₂
EARLE. P.L. 356, II 257.					
Mr Barwell	S ₄	N ₃	4		VH ₂
Mr Earle	N ₄	N ₃	4	4	VH ₂
ELLWOOD. L 842, Si. 364, J. iv 286.					
W. M. Ellwood	S ₂				VH
M. J. Ellwood	N ₂			1	VH
GREEN. G 286, Si. 381, J. xv 249.					
Miss H. L. Green	S ₄				VH
Miss B. J. Green	N ₄			1	VH
Miss D. W. Smith	N ₄			4	VH
Maid	N ₃			4	VH
HASTED (agent). L 959, Si. 387, J. vi 131.					
Eliza Smallbone	N ₄	E ₄	4		VH ₂
Jane Watts	N ₄	E ₄	4	4	VH ₂
HOLBORN (rep.). G 275, Si. 378, J. xi 185.					
Friend	S ₄	N ₃	4		VH ₄
'M.'	N ₄	N ₃	1	4	VH ₄
(Boy taken as agent)					
LAFONE. P.L. 344, II 234.					
Mary E. Lafone	N ₃	N ₁	3		AH ₁
Jenny Lafone	N ₃	N ₁	3	1	AH ₁

	PERC.	A.G.	LINK.	EXP.
LAWSON. L 1210, Si. 268, J. xviii 25.				
Mr Lawson	N ₁	N ₃	1	D ₃
Miss Lawson	N ₁	N ₃	4	D ₃
MCCASKILL. G 239, Si. 371, J. vi 135.				
Miss L. V.	N ₂			VH
Agnes McCaskill	N ₂		4	VH
MILMAN. J. iii 295, Pod. 81.				
Mrs Milman	N ₃			VH
Miss Campbell	N ₃		1	VH
PAGET. P.L. 343, II 230.				
Mrs Paget	N ₃	N ₁	4	AH ₄
Miss Paget	N ₃	N ₁	4	AH ₄
RIX. L 1151, Si. 242, J. xii 196.				
Mr Rix	N ₂	N ₁	4	AH ₁
Mrs Rix	N ₂	N ₁	4	AH ₁
ROBINSON. P.L. 350, II 244.				
Helen (later Mrs Robinson)	N ₄	N ₁	5	VH ₂
A. Nicholson	N ₄	N ₁	5	VH ₂
Mary Jane Farrand	S ₄	N ₁	6	VH ₂
SAUNDERS. P.L. 44, I 242.				
Mr Saunders	S ₄	N ₄	4	I ₄
Mrs Saunders	S ₄	N ₄	4	I ₄
SCOTT. G 242, H.P. II 396, J. vi 146.				
Miss M. W. Scott	N ₃			VH
Miss Louisa Scott	N ₃ , 4		1	VH
Miss Susan Scott	N ₄		1	VH
Miss M. B. Irvine	N ₃		5	VH
(3 other percipients not included)				
SMITH. P.L. 320, II 200.				
Mr S. Smith	N ₄			VH
Mrs Robinson	N ₄		4	VH
TRELOAR. L 820, Si. 265, J. iii 356..				
Mrs Treloar	S ₃	N ₁	1	VH ₂
Miss Cowpland	S ₃	N ₁	3	VH ₂
MR W. G 247, Si. 393, J. vii 9.				
Mr W.	N ₄			AH
Mr S.	N ₄		4	AH
WILLETT. G 184, J. iv 140.				
Dorothy Willett	S ₄			VH
Miss S.	N ₄		4	VH

APPENDIX II

SOURCES FOR TABLES IV AND V

(Sensitives in *italics*)

(1) DEATHS BY VIOLENCE

P.L., main work :

Visual hallucinations : 25, 159, 161, 166, 173, 188, 199, 210, 224, 236, 238, 247, 251.

Auditory hallucinations : 34, 151, 272, 281, 282, 286, 291, 693.

Dreams : 130, 134, 138, 139, 140, 142, 144.

Impressions, etc. : 47, 48, 59, 60.

P.L., supplement :

Visual hallucinations : 379, 387, 487, 492, 500, 512, 513, 525, 526, 527, 528, 529, 535, 536, 537, 540, 541, 562, 576, 581, 582, 583, 586, 589, 596, 599, 600, 603, 607, 608, 614, 633, 634, 636, 640.

Auditory hallucinations : 614, 625.

Dreams : 415, 416, 419, 430, 435, 444, 462, 468, 469, 471, 472.

Impressions : 391, 393 (*b*).

Si. and other sources :

Visual hallucinations : Si. 152, 160, 167, 183, 189 (L 947), 189 (L 1204), 278. M. Cl. 90 (Proc. xi 378).

Auditory hallucinations : none.

Dreams : Si. 199, 218, 219, 241, 308, 344. G 248 (H.P. II 356).

Impressions : Si. 126, 128, 133.

(2) NON-FATAL ACCIDENT

P.L., main work :

Visual hallucinations : 165, 183, 194, 219, 269, 295, 297.

Auditory hallucinations : 49, 152, 268, 284.

Dreams : 99, 105, 106, 108, 109, 111, 123, 135, 143, 145.

Impressions : 51, 52, 53, 63, 64, 78, 81.

P.L., supplement :

Visual hallucinations : 505, 569, 570, 611.

Auditory hallucinations : 621.

Dreams : 410, 432, 463, 466, 467, 479, 480, 502 (*b*).Impressions : 388, 389, 390, 399, 393 (*a*).

Si., etc. :

Visual hallucinations : Si. 249, L 892 (H.P. I 672), L 829 (*f. iv* 88).

Auditory hallucinations : Si. 276, 342. L 938 (J. v 252). L 875 (J. v 63).

Dreams : Si. 149, 280, 282, 285, 286, 319. L/t 324 (J. iii 267).

Impressions : Si. 116, 139, 91, 92, 116, 119, 149. L 961 (J. vi 163).

ESP AND MOOD

REPORT OF A 'MASS' EXPERIMENT

BY G. W. FISK AND D. J. WEST¹

It has often been suggested that a happy, care-free atmosphere is conducive to good scoring in ESP tests. This experiment was designed to discover any relationship that might exist between a subject's ESP score and his mood at the time when he took part in the test. A definitely significant relationship was demonstrated.

DESCRIPTION OF THE EXPERIMENT

This was a 'mass' experiment with nearly two hundred subjects taking part, all endeavouring to guess the order of the same set of target cards. Clock cards were employed, which depict a clock face with an hour hand pointing to one or other of the twelve hour positions. The target cards were arranged in a random order (prepared from Fisher and Yates's tables). They were displayed on the wall of G. W. F.'s study in his home at Long Ditton, Surrey. A set of three clock cards in random order were displayed each day, and these targets were changed every 24 hours at 9 a.m. Greenwich Mean Time. The experiment was conducted over a period of 56 weeks from January 1954 to February 1955.

The subjects taking part were each sent

(1) Instructions as to what they were to aim at with their guesses. They were asked to make three calls or guesses each day until they had completed a *minimum* of 192 trials representing 64 days. They were told to record the date and time of day each time they made their guesses. If they missed a day or days they were told simply to continue as before until they had recorded guesses for the minimum total of 64 days.

(2) Score sheets for recording their calls etc.

(3) A questionnaire, to be answered afresh each day, asking the

¹ G. W. F., aided by a grant from the Parapsychology Foundation, was solely responsible for conducting the tests. G. W. F. and D. J. W. were jointly responsible for the design of the project and the analysis and presentation of the results. We wish particularly to thank Miss M. Symonds for considerable assistance in checking and tabulating the scores, and Mr Robert Radburn for advice and help with the statistics. In addition, thanks are due for the co-operation of Mrs Dorothy Pope of Duke University for securing responses from subjects in the United States, to Dr Hernández of the Physics Laboratory, Seville University, for organising his students into a group of Spanish subjects, and to Dr and Mme Vasse for helping with the group of French subjects. Above all, thanks are due to the patient subjects themselves.

subject about his frame of mind at the moment of making his calls. He was asked to record his 'Feeling-Tone' by writing down AA, A, B, C, or CC according to whether he was feeling respectively 'exaltation'—AA, 'pleasure'—A, 'neutral'—B, 'un-pleasure' or 'depression'—CC. This was meant to provide subjects with a very rough five-point self-rating scale for recording their mood. In practice, 'exaltation' and 'depression' were rarely reported (perhaps because persons in such moods would not be considering ESP guesses). In the evaluations the AA category has been amalgamated with the A category and the CC with the C, thus in effect producing three major mood groupings :

- A, pleasurable
- B, neutral
- C, un-pleasurable.

Other questions were asked as well, including attitude to the experiment (interested, indifferent, bored, antagonistic) and anticipation of result (expecting to succeed, neutral, not expecting to succeed). Since mood was from the outset the primary concern, these other subdivisions are not included in our present report. In any case, far more subjects filled in answers to the first question on 'feeling-tone' than to the subsequent questions on attitude and anticipated result. Moreover, there was a clear interdependence between, for example, pleasurable feeling-tone and interest in the experiments or anticipation of a successful result.

With the object of establishing links with the subjects, G. W. F. encouraged them to correspond with him. To all except the first few participants he sent the document reproduced in Appendix I, a sort of introductory preamble designed to counteract undue scepticism and to encourage continued co-operation.

Altogether nearly 200 volunteers started the 'Daily Three' routine and of these 162 went at least half the course of 192 calls. Counting all scores there were 35,716 completed calls. The majority succeeded in recording their daily moods, although not all found it easy or possible to do so for every day. The scores of any subject making less than half the goal of 192 calls were ignored in the analyses of the results, i.e. a minimum of 96 calls were required for a score to be included.

For convenience percipients were divided into four main groups :

1. Great Britain	106 percipients	23,464 calls
2. U.S.A. & Canada	27	5,604
3. Spain	21	4,032
4. France	8	2,616
	<u>162</u>	<u>35,716</u>

RESULTS

The total number of correct calls for all subjects was very close to chance expectation :

No. of correct calls	2960
Chance expectation (taken as $1/12$ the no. of trials)	<u>2976.3</u>
Deviation	<u><u>-16.3</u></u>

Supposing the result had been a substantial deviation from chance expectation, it would not have been possible to evaluate the significance of the deviation by the usual methods since many of the subjects were guessing at the same set of targets. But there is no need to try to allow for a 'stacking effect' since even using the formula \sqrt{npq} for the standard deviation (which is liable to exaggerate the significance of the result) a deviation of -16.3 corresponds to a t value of -0.31 , which is completely without significance.

Evaluated in a similar way on the Divergence Scoring System ¹ without allowing for stacking effect, the total score is also without significance :

No. of Trials	(n)	35716
Chance Expectation	($3n$)	107148
Divergence Score		106807
Deviation	+	341
Standard Deviation	($\sqrt{19n/6}$)	336
t	+	1.01

As regards the scores of individual subjects, the first analysis showed that there was no single percipient who scored significantly (remembering that the 160 or so percipients were all guessing substantially of the same targets) above what one would expect from chance. The one possible exception was that of a score which gave, using the Divergence Scoring System, a t value of 3.269 (odds of approx. $900 : 1$). For the rest, seven percipients achieved a score, positive or negative, equal to rather more than two standard deviations (average odds approx. $50 : 1$) but with some 160 percipients that is very tenuous evidence for the existence of any paranormal scoring.

It occurred to D. J. W. that it would be worth while in this case,

¹ For an explanation of this method, which is a device for giving some credit to approximately correct calls as well as to direct hits, see G. W. Fisk and A. M. J. Mitchell, ESP Experiments with Clock Cards : A new technique with Differential Scoring, *Jnl. S.P.R.*, 1953, **37**, 1-14.

in which there is a fairly long target series, to work out for each trial the most popular guess or 'majority vote'. In this way the guesses of all subjects are reduced to a single series, which can be matched against the randomised target series in the usual manner without the difficulty of the 'stacking effect' arising.

This computation has been carried out on all the data in which the subjects registered their 'feeling-tone' for at least 45 of the guesses which they recorded. Some subjects failed to record their moods at all, or did so in only a very few of their trials, and some failed to understand clearly what was required. Hence in this computation the total of 162 subjects who completed 37,716 guesses (which was mentioned above) was reduced to 143 subjects with a total of 34,869 calls. The computation has been done for the three moods A, B, and C as a whole, and it has also been done separately on each of the three subdivisions of mood. The results are set out in Table I.

TABLE I. 'MAJORITY VOTE' ANALYSIS

<i>Mood Group</i>	<i>No. of correct 'Votes'</i>	<i>Chance Expecta- tion</i>	<i>Standard Devia- tion</i>	<i>Devia- tion - 0.5 *</i>	<i>t</i>	<i>P</i>
A, B, and C together	77	54.75	7.1	+21.75	+3.06	0.0022
A	76	45.4	6.45	+30.1	+4.67	$< 3 \times 10^{-8}$
B	37	41.4	6.1	-3.9	-0.64	-
C	51	35.7	5.7	+14.8	+2.60	0.009

* 0.5 subtracted from deviation for Yates's correction.

Table I shows that, over the whole experiment, the majority vote corresponds significantly with the target series, but that the majority vote of Group A (the occasions when a pleasurable mood was recorded) produces the most substantial and highly significant correspondence with the target.

It needs to be pointed out here that the results of the subdivisions A, B, and C are not independent of the total positive result, but the deviation produced by the Group A guesses is substantially the largest of the three, although Group C also produces a statistically significant positive result. Some data were wasted in the assessment owing to the fact that sometimes two or more guesses were equally popular and no majority vote could then

be recorded. This happened most often at the beginning of the series, and in the assessment of the smaller Group C, when a relatively small number of calls were registered.

Although it is not directly relevant to the problem at issue—which is the variation of ESP scoring according to mood—one must note in passing the interesting fact that the majority vote method of evaluation succeeded in demonstrating a significant trend that was not revealed in the sum total of all the subjects' scores. It may be that the majority vote method is a good one to use when dealing with mass ESP tests, but the reason for its effectiveness is not at all clear. The experimenters hope to explore this question at a future date.

Dr David Kahn has suggested that, since the method of taking a majority vote tends to exaggerate any existing preference trends toward the calling of particular hours, this surprising result might be due to a slight imbalance of the target series happening to coincide with subjects' preferences. Such a 'coincidence' if it occurred would still need explanation, but in point of fact inspection of the actual figures, which are given in Appendix II, indicates that the subjects' preferences, although marked, did not coincide with similar variations in target frequencies.

Another possibility was that the distribution of subjects' scores was peculiar. There could have been a preponderance of positive scores masked by a minority of large-sized negative scores. An examination of the actual distribution of subjects' scores, which is given in Appendix III, does not bear this out.

One factor which may have contributed to the production of a positive result from this seemingly null data is that the majority vote method caused a lot of null data to be eliminated. All these occasions on which there was a tie, that is to say no absolute majority for any particular target, were excluded from the count. This 'waste data', being neutral in trend, may have been obscuring the result.

By way of confirmation of the trends revealed in Table I, the relative frequency of above and below chance divergence scores¹ was worked out for the three mood groups. The results are shown in Tables II and III. There is a significant variation in this respect between the groups. The trend is for a relatively high proportion of *above* chance scores in Group A, the occasions of pleasurable mood, and a relatively high proportion of *below* chance scores in Group C, the occasions of unpleasurable mood.

¹ The divergence scoring system was chosen in this assessment so as to lessen the wastage of data due to days on which the scores were in exact accordance with chance expectation.

TABLE II. ABOVE AND BELOW CHANCE ANALYSIS

1. OBSERVED

<i>Day's Mood</i>	<i>Days above MCE</i>	<i>Days below MCE</i>	
A	2288	2168	4456
B	2128	2151	4279
C	675	732	1407
	5091	5051	10142

2. EXPECTED

<i>Day's Mood</i>	<i>Days above MCE</i>	<i>Days below MCE</i>	
A	2236 (1.2)	2220 (1.2)	4456
B	2148 (0.2)	2131 (0.2)	4279
C	707 (1.45)	700 (1.45)	1407
	5091	5051	10142

χ^2 for each cell in brackets.
Sum of χ^2 (with 2 d.f.) = 5.7
Probability < 0.06

There follows a 2×2 Chi-square table (Table III) to test the moods A and C apart from Mood B :

TABLE III

<i>Day's Mood</i>	<i>Days above MCE</i>	<i>Days below MCE</i>	
A	2288	2168	4456
C	675	732	1407
	2963	2900	5863

χ^2 (1 d.f.) = 4.89 P < 0.03

Having found this connection between direction of scoring (i.e. above or below chance expectation) and mood during guessing

(pleasurable or un-pleasurable), the next logical step was to investigate a possible correlation between mood and size of deviation. This was done by investigating the correlation between scores of individual subjects (in terms of number of standard deviations from mean chance expectation) and the proportion of days on which the individual reported the mood category in question. The results are shown in Table IV. For this analysis the same data were used as in the majority vote method, that is the 34,869 guesses of the 162 subjects who registered their mood for a minimum of 45 guesses. Now 37 of these subjects actually registered double or treble the average number of 192 guesses, so their data were counted as either two or three units each, making a total of 184 units of data in all for each of the correlation computations.

TABLE IV

Correlations between subject's mood trends (expressed as proportion of days on which given mood was registered) and the size of their ESP SCORE (expressed as number of standard deviations from chance expectation with the sign taken into account)

<i>Mood Category</i>	r^*	<i>Fisher's 'z' transformation</i>	Pr
A	$r = +0.2522$	$z = 2.577$	0.0011
B	$r = -0.1529$	$z = 2.073$	0.038
C	$r = -0.1112$	—	insignificant

$$*r = \frac{\epsilon xy - N\bar{x}\bar{y}}{\sqrt{(\epsilon x^2 - N\bar{x}^2)}} \quad (\epsilon y^2 - N\bar{y}^2) \quad z = \frac{1}{2} \log_e \frac{1+r^1}{1-r^1}$$

There is therefore a small but highly significant positive correlation between size of ESP score and predominance of pleasurable mood.

CONCLUSION

All three methods of evaluating the data indicated the same conclusion, that a pleasurable mood favours positive ESP scoring. Though possibly tenuous and indirect, a definite relationship between mood and scoring has been demonstrated in this instance. In view of the widespread impression among experimenters that a happy atmosphere at experimental sessions favours good scoring, this result is not unexpected. Of course this one investigation establishes nothing, but simply provides a pointer for further research.

The hypothesis will need re-testing in other series, and in any repeat experiment more efficient means will need to be found for defining and estimating 'mood'.

The significance levels quoted in the report in connection with the majority-vote analysis cannot be taken as measures of the relationship between scoring and mood. In fact the correlation, though statistically significant, was small. But the majority-vote method of processing the data may prove to be a convenient way of making a statistical prediction to test the presence of ESP.

APPENDIX I

A POINT OF VIEW

AN understandable first reaction to the present ESP experiment is that it is sheer non-sense. How possibly could any subject guess successfully the hour symbols on three cards exposed in a room perhaps hundreds of miles away? Any success would surely be the result of pure chance. Let me suggest a possible point of view which may help you to consider the experiment in which we are engaged as not necessarily so basically unreasonable.

It was Henri Bergson and afterwards C. D. Broad who advanced the theory that the function of our brain and nervous system was in the main *eliminative*. The suggestion is that each person at each moment is capable of remembering all that ever happened to him and of perceiving everything that is happening everywhere in the world. But the brain and sensory nerves protect us from being overwhelmed and confused by the mass of largely useless and irrelevant knowledge by shutting out most of what we should otherwise perceive at any moment and leaving only that very small and special selection which is likely to be practically useful. According to such a theory each one of us has potential contact with Mind at Large, but, in so far as we are animals, our business is at all costs to survive. To make biological survival possible, Mind at Large has to be funnelled through the reducing valve of the brain. What comes out at the other end is a measly trickle of the kind of consciousness that will help us to stay alive on the surface of this particular planet.

Certain persons, however—perhaps all of us in some degree—seem to be equipped with a kind of by-pass that sometimes circumvents the reducing valve. Or, to put it in another way, the valve may sometimes leak a little. And what oozes past the valve we term ESP, i.e. the obtaining of knowledge otherwise than through the ordinary channels of the senses. That this does occur seems proved beyond reasonable doubt by the very large mass of evidence that has now been slowly accumulated by researchers in many parts of the world. The present experiment may perhaps give us more evidence as to the way these leaks occur.

How our ESP by-pass or leak can select the little particular bit of the Mind at Large that we want to enter on our score sheet is difficult to imagine. The clue is probably 'association'. The subject and experimenter are linked together by the mere fact that they are taking part together in the same experiment. Even the most tenuous of links seems sometimes to be all that is necessary.

Let's try.

APPENDIX II

TARGET AND CALL FREQUENCIES IN THE MAJORITY-VOTE ANALYSIS

The Raw Data

Total Calls	34,869	
Direct Hits	2,915	(deviation = 9.25)
Divergence Score Deviation	408	($t = 1.23$)

DISTRIBUTION OF CALLS

Hour :	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Frequency :	2972	3261	3524	3366	3118	2665	3454	2901	3171	2113	2314	2010

This preference order is similar to that observed in the 1952 clock-card experiments (see *Jnl. S.P.R.*, 1953, **37**, 13-14).

Preference order 1954 : III, VII, IV, II, IX, V, I, VIII, VI, XI, X, XII.

Preference order 1952 : II, VII, III, IX, IV, VI, I, V, X, VIII, XII, XI.

DATA AFTER MAJORITY-VOTE PROCESS

Hour	GROUPS A, B & C			GROUP A		
	Target Frequency	Call Frequency	Preference Rank	Target Frequency	Call Frequency	Preference Rank
I	56	60	5th	51	40	9th
II	51	79	3rd	45	45	7th
III	50	110	1st	43	66	2nd
VI	46	77	4th	44	58	4th
V	62	58	6th	46	57	5th
VI	59	40	9th	55	42	8th
VII	61	86	2nd	41	76	1st
VIII	62	48	8th	40	47	6th
XI	50	56	7th	47	60	3rd
X	54	10	12th	42	17	11th
XI	54	21	10th	45	23	10th
XII	52	12	11th	46	14	12th
Total	657	657		545	545	

APPENDIX III

DISTRIBUTION OF SUBJECTS' DIRECT HIT SCORES

<i>t</i> value range	Frequency of above chance scores	Frequency of below chance scores
0.00-0.24	12.5 *	11.5 *
0.25-0.49	15	12
0.50-0.74	14	13
0.75-0.99	10	12
1.00-1.24	7	5
1.25-1.49	1	8
1.50-1.74	3	2
1.75-1.99	5	4
2.00-2.24	4	2
2.25-2.49	1	1
2.50 and over	0	0
Totals	72.5	70.5

143 subjects

* Each of these frequencies includes a half of the 21 subjects who scored exactly chance expectation with $t = 0.00$.

WHAT IS THE AGENT'S ROLE IN ESP?

A REPORT OF WORK IN PROGRESS

BY JOHN LANGDON-DAVIES

THIS experiment was designed to test certain working hypotheses suggested by previous ESP work. It is not considered strong enough in itself to bear the considerable weight of these hypotheses, but since it was successful it may be a useful basis for further experiments along the same lines.

1. It is normally assumed that the psi faculty in card-guessing experiments is an exceptional possession and that the first aim of testing should be, if possible, to discover the rare sensitive.

This, however, does not seem to fit in with the facts. There is no known reason why sensitives should be so unevenly distributed in the population as, for example, revealed by a comparison of the number of sensitives discovered in the early Rhine experiments and the number discovered by Dr Soal. Such biologically inherited characteristics as possession of absolute pitch, colour-blindness, left-handedness, are not as unevenly distributed at Duke University and London University as ESP would appear to be. (At any rate, no evidence to the contrary is known to the present writer.)

Moreover, such biological characteristics do not vary from day

to day or with environmental changes. If a known sensitive can be shown to fail in exhibiting sensitivity on certain occasions or at certain times, there is no good reason for assuming that if the right conditions could be found a hitherto proven non-sensitive would not prove to possess sensitivity.

Our own experience with card-testing suggests that there are many more people potentially sensitive among the population tested by us here in Spain than elsewhere. This gave rise at one time to the working hypothesis that we were tapping some kind of primitive stock in which this rudimentary faculty was more common than in advanced communities such as England or America. This hypothesis received a rude shock when we tested English friends and had a number of successes, although none so startling as those in Spain.

Finally, when both of us (J. L-D. and P. L-D.), after having never produced a score above Mean Chance Expectation in thousands of tests, found ourselves guessing an average of 10 per 25 cards correctly with A. Maria II, our 'universal agent', we felt the hypothesis of a primitive stratum singularly unconvincing!

I therefore decided to abandon the normal working hypothesis and to see whether it would not be more fruitful to assume that ESP ability was latent in everybody, its exhibition being an environmental and not a biological variable. If it was latent in everybody, the experimental task could be considerably eased since the experimenter could be his own guinea-pig. He could design his experiments with a view to discovering the environmental conditions which would reveal his own sensitivity.

In order to have as much experience as possible, I carried out a very considerable number of clairvoyant DT tests on myself. In spite of a quite uniformly MCE result I could not satisfy myself that the guessing was controlled by chance. It seemed more likely that the interplay of positive and negative ESP was levelling down the scores. It is after all only an assumption that the human being is at any time a pure machine obeying the calculus of probabilities. Elsewhere I have given some examples of apparently crypto-ESP in these DT experiments.

In the course of these DT tests most of the usually recognised variables were held in mind. On each score sheet a symbol was placed before the test was begun to describe the weather and my superficial physical and psychological condition. At times it was tempting to attribute minor successes and failures to hot and cold, wet and fine, good and bad temper, a good or a bad night, etc., but

none of these provided statistically significant differences, or consistent results, for long.

Nor did music, cheerful conversation, tea, alcohol, benzedrine or barbiturates show valid signs of uniform effects, although music on a few occasions seemed to raise the level for the time being. Distraction of the attention was apparently a good thing, but something more specific seemed desirable.

Nevertheless I become convinced that, if I could discover the 'knack', I would be able to produce a respectable critical ratio, and I was not prepared to abandon my working hypothesis that all human beings, and therefore myself, possessed a faculty usually rendered null by an inimical environment.

I became convinced that distraction of the conscious mind was merely the method and that this should be done in some specific way, the discovery of which was the key to the problem.

2. A second working hypothesis was suggested by the feeling that whatever the card-guessing ability might be, it could not be anything *sui generis*. It seemed unlikely that the human being possessed a special faculty for guessing the nature of unseen objects. It was much more likely that all psi ability requires the same sort of environment and that lessons therefore could be learned from studying the conditions found essential for other spontaneous and semi-spontaneous types of psi phenomena. It has always seemed to me very unwise to carry out research into laboratory psi without a considerable knowledge of spontaneous psi. After all, a controlled experiment should not be a research into entirely new material, but a new way of examining old material under controlled and more satisfactory conditions.

My second working hypothesis therefore was that card-guessing experiments might gain if carried out in conditions approximating to those found valuable for trance seances, automatic writing, spontaneous telepathy, etc. I compiled a list of physical and psychological conditions which were found helpful in the production of spontaneous and semi-spontaneous psi and resolved to test out the possibilities of their application to card-guessing. The present experiment is a first instalment of this plan. Its success makes it essential to let it be known to other workers who may be led to try other techniques along the same general lines.

I had reached this point of theorising when I was fortunate in being able to appropriate a valuable idea given me by Mrs Rosalind Heywood.

Mrs Heywood, who has done some experimenting with automatisms, very kindly agreed to give me some practical

lessons in the art. We sat down with a wine glass between us and the letters of the alphabet spread round the table. After a few preliminary canterers round the table on the part of the wine glass, Mrs Heywood said : 'You know, Mr Langdon-Davies, though it may sound silly, and indeed it *is* silly, we find that the thing works better if we address it as a person,' and she proceeded to ask the glass some leading questions to which it responded very reasonably. However, Mrs Heywood saw fit to warn me that any 'messages' might be trivial or even occasionally indecent on a first occasion, and when the wine glass had approached the first two letters of a very coarse word I lost courage and deliberately forced it towards a letter which would end the word innocuously. This cheating seemed to offend it, as nothing further resulted.

It at once occurred to me that this idea of dramatisation was a basic one in the exhibition of many types of psi phenomena, and that frequently the dramatic play required seems to involve the exteriorising of a faculty which is really a part of the sensitive's own mentality. Thus it would seem that such a faculty can be best stimulated, if, instead of appealing to it directly, for example a table is asked to reply to the questions. In the same way a secondary personality manifests most successfully as a control ; the automatic writer asks questions of wine glass or ouija board ; the scryer needs a *point d'appui* in a crystal.

I resolved, therefore, to try the effect on my scoring of precisely this form of dramatic approach. A DT experiment with the experimenter doing his own scoring seemed ideal to test the possible effect of dramatic exteriorisation by means of a sort of 'K object'.

It would have the great advantage over a GESP or other experiment involving an agent and other personalities that there could be no doubt that any positive result must be a function of the guesser's own mentality, and not of interplay between two or more people or anything resembling naïve telepathy.

Carington's original conception of a K object was of course that it made possible an associationism extended into two or more minds ; my conception was that it could be used to build up a dramatic situation wherein impulses existing within the personality could be imagined as coming from without. Clearly the K object should be associated in some favourable way with the experimenter and the experiment ; and on the analogy of other psi situations it must not be considered as a thing but a person. A photograph would be the ideal object.

I therefore wrote to Mrs Eileen Garrett, without explaining my objective, and asked her to let me have a photograph of herself, if

possible in her working surroundings. This choice of object was a natural one. Mrs Garrett, as President of the Parapsychology Foundation, New York, is responsible for my work and has shown great enthusiasm for it. Moreover, I have naturally desired to know more about her, and as I have never met her I recently bought and read two of her books. I had a respect for her psi abilities and had discussed with her by letter her own experiences with regard to card-guessing, and I had a strong feeling that some such psychological approach as I was now trying to invent might have prevented such negative results as those experienced in her work with Dr Soal in England.

THE EXPERIMENT

In order to have a basis for comparison with any results which this, and further tests to follow, might produce, I once more carried out a series of 25,000 DT trials. I had already (in 1955) carried out some 30,000 such trials and have commented on the results elsewhere.

On this occasion the trials were annotated and, as stated above, none of the more obvious variables could be shown to affect the scoring. The trials were divided into batches of 5,000 trials each, and the following are the totals of correct guesses for - 1, 0 and + 1 guesses :

	- 1	0	+ 1
1st batch of 5,000 trials	957	1,007	974
2nd " " "	989	1,003	988
3rd " " "	956	968	909
4th " " "	971	1,055	881
5th " " "	968	968	925
	4,841	5,001	4,677
Expectation per batch	960	1,000	960
Expectation for grand total	4,800	5,000	4,800

The technique I now adopted was as follows : I placed the photograph on the table before me and resolved, I confess at first rather shamefacedly, to treat it as Mrs Heywood had recommended with the wine glass.

Having shuffled the cards beneath the table or at least without looking at them, I laid them down in front of the photograph and addressed a few words to the K object, or 'agent'. I decided that the experiment should consist of 200 runs ; i.e. 5,000 guesses, so that a simple basis would exist for statistical comparison with the previous control series.

In spite of many attempts to add variety, a DT experiment as normally carried out is apt to be boring or to become an automatic performance, not unlike knitting in being 'restful' after a long day.

The atmosphere of the new experiment was very different. I found myself alternately cajoling and scolding Mrs Garrett. On one occasion I had hesitated and guessed 'square', 'wave', instead of 'wave', 'square', after having first intended to guess the correct 'wave', 'square'. I pointed this out to her and appealed to her to defeat negative ESP. I was rewarded by 10, 8, 10 in the following three runs. The test became exciting and even exhausting ; and as the last runs approached I began to fear the worst and redoubled my requests to help me fight the negativism which I felt growing in my mind. My prayer was heard and 'we' ended by guessing 99 right out of the last 400 .

The total scores in series of 8 runs of 25 trials (i.e. per 200 guesses) were as follows :

- I	0	+ I
37	48	32
34	40	37
47	42	45
31	37	41
32	44	40
28	49	40
38	44	44
36	45	50
43	40	33
36	49	39
29	45	39
35	45	34
47	51	36
38	41	39
30	41	28
45	42	48
43	39	38
39	46	31
39	45	37
41	52	35
32	42	46
32	43	38
30	43	43
40	50	53
33	49	36

The grand totals for the 200 runs were therefore :

- I	0	+ I
915	1112	982
	334	

Thus the observed deviation for 'o' guesses was 112 which gives a critical ratio of almost exactly 4, a result likely to be due to chance once in 15,771 repetitions of the experiment. It will be noticed that in the 25 series of 200 guesses only two were below MCE and they were 37 and 39 respectively.

DISCUSSION

Assuming that the very significant result was due to the major environmental variation, namely the use of a dramatic technique of exteriorising by means of a kind of K-object, we have a basis for further inquiry into the fundamental nature of ESP which is somewhat novel. Let me summarise some points that are involved.

1. ESP would appear to be something that can be elicited in people hitherto unsuspected of possessing it.

Fortunately there exist records of tens of thousands of DT and GESP trials carried out by the experimenter and there is an absolutely uniform tendency to MCE results with one exception. This exception is the experiment with A. Maria II, the 'universal agent' already described elsewhere. It is therefore known that in normal conditions none of the many variables considered (drugs, health, fatigue, weather, etc., etc.) produces significant improvement in guessing. The dramatic K-object technique unquestionably did so.

This considerably alters what has been regarded as a crippling difficulty in ESP research, namely, the scarcity of subjects. There is no reason to believe that the present experimenter is exceptional in his ability to respond to a correct experimental set-up. But it is of course not suggested that *this* set-up will be correct for others.

2. The function of the agent is once more a matter of doubt. In our experiments with P. Maria I, we were very much impressed with her equal ability in clairvoyant and GESP conditions. If the change from no-agent to agent produced less change than a number of other technical variations of far less apparent importance, could the function of the agent be as important as has usually been assumed?

Is the agent after all *not the transmitter of information but the point d'appui* required to help the percipient to use an inborn faculty or source of knowledge? Such a hypothesis would link up card-guessing with a number of other psi phenomena. It would also go some way to answer the materialist objections based on communication theory.

3. It should be noted that Mrs Garrett was not told the reason

for the request for her photograph and had no possible means of taking part in the experiment as a distant transmitter of anything. She was as free of conscious complicity as the savage whose image is being maltreated by an enemy. Indeed, the experiment for which the photograph was originally asked was not the same as the one for which it has so far been used.

It can be therefore be assumed that the sole mental source involved in the experiment was the experimenter himself who combined all the roles involved—experimenter, percipient, shuffler and scorer.

This does not mean that theories based on gestalt psychology and suggesting that the exhibition of ESP is a group-phenomenon must be ruled out. The group, which may involve everybody emotionally linked to an experiment, present or not present, would on the present hypothesis create the essential *point d'appui* for the percipient to exteriorise his faculty.

4. It would perhaps be worth while carrying out tests to see if a sheep-goat distinction can be made on the basis of people's ability to dramatise. If the internal monologue must be turned into an externalised dialogue for the exhibition of ESP ability, people able to 'talk to themselves' in this way may have an advantage over others.

Needless to say, the present theory links up with what is known about hypnosis. If we accept the findings of those who tell us that all the suggestion involved is auto-suggestion, there remains the fact that hetero-suggestion is more productive of results with most people than auto-suggestion. The hypnotiser is a *point d'appui* helping the subject to exteriorise and not a force dominating the subject.

5. It is well known that recognised sensitives whose psi gifts are well authenticated in other situations have failed in card-guessing. Perhaps this is because essentials existing in the other situations have not been preserved in this. Especially should we examine laboratory methods which are likely to militate against the exteriorisation of the subject's powers by means of the agent or experimenter. A psycho-analyst would not expect a satisfactory transference if he imposed physical and psychological distance between himself and his patient.

Since writing this report I have completed a second series of 5,000 trials with the dramatic-technique and also a further control series of 144 runs of simple D.T. The 'Garrett B' series, though not as successful as the original 'Garrett A' series, showed a sufficient excess over MCE to raise at one point the over-all CR

to 4.25. The last forty runs were done in very bad emotional conditions owing to illness in the family, bad nights and considerable worry, and produced scores below MCE thereby reducing the CR for the 10,000 guesses of the two series together to 3.85. The control series of 144 runs give a result slightly below MCE as is usual with the writer's guessing tests. Thus the previous results are confirmed.

18 April 1956

N.B. At Dr Soal's suggestion I add that the correct guesses for the first and last card in the pack, the only ones from which a sensory leakage can be readily imagined, are both slightly below the average for the other 23 cards.

POSTSCRIPT

I have just received the *Journal of Parapsychology* for March 1956 and note the following sentences in Dr Louisa E. Rhine's article. They seem to be relevant to such researches as described above.

This survey of telepathy cases has pointed in the main to the percipient rather than the agent as the active initiating person in telepathic exchange. . . This view of the role of the percipient would be in line with the one he plays in clairvoyant experiences.

Further experiments have been carried out in which the experimenter-percipient 'splits his personality' into one which guesses very fast (as fast as the pencil can fill in the score sheet) and one which guesses deliberately two guesses at a time. Although neither Fast nor Slow shows significantly larger score than his opponent, *both* do better than the experimenter's undivided self and the sum of their results for 2,000 guesses gives a CR of four standard deviations. It is hoped to describe this and other experiments in dramatized 'self-inflicted' D.T. later.

9 June 1956

SURVEY OF SPONTANEOUS CASES

THE Council have now prepared their plan for putting into effect the recommendation made last year by the Cambridge Conference for a new enquiry on a large scale into spontaneous cases, and intend to proceed with this plan at once. The object of the plan is to

obtain a large number of recent cases of apparitions, premonitions and other kindred phenomena occurring spontaneously. Phenomena which are clearly physical, e.g. those of the poltergeist type, do not fall within the scope of the enquiry, nor do phenomena resulting from mediumship.

The first stage will be the distribution of forms with a few simple questions. These forms have been drawn up in consultation with the American S.P.R., which in accordance with the Cambridge resolutions is conducting a parallel enquiry in the United States. The forms when completed are to be returned to the Society's rooms, where they will be classified according to whether the replies are affirmative or negative, and, if affirmative, according to the type of the experience and of the event, if any, to which it apparently corresponds : for instance, the apparition of a man seen at the time of his death.

Cases that seem to be of interest will then be followed up on the lines traditionally followed by the S.P.R., enquiries being made, for example, as to details of the experience or event that may not have been given precisely enough in the reply, as to corroboration, etc. When the stage of verifying the facts has been completed, the cases will be examined for possible psychological motives. The opinion was expressed at the Cambridge Conference that this aspect had not received sufficient attention in previous enquiries, such as the Census of Hallucinations, reported in Vol. X of S.P.R. *Proceedings*. In this respect, therefore, the enquiry is breaking new ground.

In addition to our Society and the American S.P.R. an International Committee, of which our Corresponding Member Mr G. Zorab is Chairman, is pursuing a similar enquiry. The three bodies are acting in close co-operation.

The Council hope that many members of the Society and subscribers to the Journal will wish to take part. **Those resident in the United Kingdom** can obtain the question forms on application to the Secretary.

Members and subscribers **residing elsewhere** will, it is hoped, also wish to co-operate, though distance and differences of local conditions may make it more difficult in some countries to follow up cases in the way outlined above. Those who wish to co-operate are at liberty, of course, to do so through whichever of the three bodies they prefer. It is suggested, however, that residents anywhere in the United States, Canada, and the West Indies should communicate with the American S.P.R. (880 Fifth Avenue, New York 21), residents in the Commonwealth other than Canada and the West Indies, with the S.P.R. in London,

and residents in other countries with the International Committee (Mr G. Zorab, Verdistraat 32, The Hague, Holland). Those residing outside the United Kingdom who wish to co-operate through the S.P.R. are invited to look out for spontaneous cases and to send to the S.P.R. reports on any that they regard as adequately corroborated and otherwise suitable.

REVIEWS

MIND IN LIFE AND DEATH. A Refutation of Scientific Materialism through Empirical Evidence. By Geraldine Cummins. London, Aquarian Press, 1956. 269 pp. 21s.

This book is written with passion and obvious sincerity by a lady well known for her remarkable automatic writings, and for the cases, a number of which have appeared in this *Journal*, in which she has provided a sitter with information about the deceased, which it is hard to believe could have been known to either sitter or automatist.

Here, as will be seen from the sub-title, she is crusading gallantly against those Dogs of Unbelievers, the scientific materialists, who will not accept as conclusive the evidence for survival provided by mediumship and spontaneous cases. We humble agnostics, moreover, who do not 'know' either way, also find ourselves rolling in the dust alongside them. This, then, is not a book of research, but is openly intended to prove a point. What can the researcher learn from it? It is mainly a collection of cases, some from S.P.R. records, others from Miss Cummins's own work, which are offered as evidence for survival, with her comments on each. She also discusses the views of some notable psychical researchers on the subject, in the light of her own. Though some of us may not find it possible to share her views, we shall find her personal cases, some of them printed for the first time, of the deepest interest. Here again we have such items as pet names, place of death, personal idiosyncracies, wishes for the disposal of possessions, and other intimate information, which to the best of their belief was unknown to automatist or sitter, and which was subsequently verified. We have also, though not enough of it, some account of Miss Cummins's psychological experience of her own automatisms; her impression, for example, that her writing for sitters came from one 'level', her historical scripts from another. She also describes the conditions in which she writes most easily, her impressions of sitters and investigators as 'good' and 'bad', and so on. The reviewer could have wished

the whole book to be such a personal record, and the reader allowed to make up his own mind about it, without pressure—for though many are trained to assess, few can provide such interesting material as Miss Cummins has done.

ROSALIND HEYWOOD

JOURNAL OF PARAPSYCHOLOGY. Vol. 19, No. 4, December 1955.
Durham, N.C., Duke University Press. \$1.50.

Dr Cadoret describes an experimental design involving a two-step procedure in which one ESP task is used as predictor for another. The results reported are of only borderline significance. Exploration of new experimental techniques is to be welcomed; it is not, however, clear that there is any gain in economy or fruitfulness to be expected from the proposed design.

The main part of the *Journal* is a discussion of Dr Price's critical article on ESP in *Science*. There are contributions by Price himself, by Soal, by Rhine and several others. Price's main points were that the evidence for ESP was so good that either ESP must be taken as proved or experimenters must have been taking part in collusive fraud, and, secondly, that since ESP is plainly impossible, the second alternative must be accepted. ESP comment has been mainly on the charge of collusive fraud, and too little attention has been paid to the importance of the first admission. If it is agreed that the only possible alternatives are ESP or collusive fraud, the argument might go on: since the second of these alternatives is absurd, the first must be accepted.

There is a sharply critical review of the new edition of *An Adventure* by Moberly and Jourdain.

R. H. THOULESS

REVISTA DE PARAPSICOLÓGIA, Buenos Aires.

This Review for the 1st and 2nd Quarters, 1956, contains a translation of Dr G. R. Price's article 'Science and the Supernatural' (summarised in the *Journal* for December 1955) together with the comments thereon by Rhine and Soal, and Price's reply thereto—which were taken from the *Newsletter* of the Parapsychology Foundation. Dr J. R. Musso, the President of the Instituto Argentino de Parapsicologia, follows these up with an article criticising Dr Price's position and concluding with an open letter to him accepting his challenge to conduct a controlled experiment. In his reply, which is published in the same issue, Dr Price writes '... my impression is that your proposal is a completely

fair and reasonable one.' It appears probable that an experiment will be made which fulfils Dr Price's conditions.

M. T. H.

CORRESPONDENCE

THE SHACKLETON REPORT

SIR,—In the item entitled 'The Shackleton Report: An Error Discovered' (*Journal*, March 1956) Dr Soal announces Dr West's discovery of a 'curious' error in three score sheets of the Shackleton experiments.

Dr West was said (by Dr Soal) to have 'observed that Shackleton's guesses had been recorded in the "A" (target) column of the scoring sheet instead of in the "G" (guess) column,' thus making the published displacement scores erroneous.

How did Dr West *know* that the digits in the 'A' column were Shackleton's guesses? How he was able to make this deduction in the face of column headings to the contrary, we are not told.

The explanations were far from satisfying, especially in view of the number of times the records were said to have been rechecked by independent observers, including 'several American parapsychologists'. I asked to see copies of the three sheets in question, which were then kindly loaned me by Mrs Goldney. Inspection of these sheets leads me to the following conclusions:

1. *Dr West and Dr Soal must have forgotten the decoding procedure followed in the Shackleton experiments, and*
2. *There was no error in the displacement scores of these three sheets.* The scores of the Soal-Goldney report were correct as originally published.

The three sheets concerned an experiment in which two agents were working in opposition (looking at different animal picture cards on each trial). In order to understand interpretation of these sheets, it is necessary to know the *decoding procedure* used in the Soal-Goldney experiments. This procedure was complex and unusual in PNC experiments; therefore it may be more easily followed if we notice first how it operated in the usual *one-agent experiments* (Soal-Goldney report, *Proc.*, 47, 1943, p. 40).

Decoding was necessary because:

1. The record of the targets was in the form of *digits*.
2. The record of the subject's guesses was in the form of animal initial *letters*.

The order of the agent's targets was determined by a random

arrangement of the digits 1 to 5 written by Dr Soal in the 'A' (actual) column of the record sheet before coming to the session. At the session the agent shuffled five animal cards and laid them in a row on the table. The test began with the experimenter (S.G.S.) holding up at the screen opening a 'digit' card bearing the number that appeared first in the 'A' column of his record sheet. When the agent saw this number, she looked at the corresponding animal card—for example, if the number was 2, she looked at the second card in front of her ; if the digit was 5, she looked at her fifth card ; and so on.

Because the order of these five cards was changed at intervals during the experiment, it was necessary to write on each record page the *agent's code* : that is, the order in which she had her five animal cards arranged at the time. For example :

1	2	3	4	5
Zebra	Giraffe	Pelican	Lion	Elephant

The record of the subject's guesses consisted of the animal initials (G, P, L, E, Z) written by Mr Shackleton in the 'G' (guess) columns of his record sheets.

In order to check the hits, it was necessary to turn B.S.'s animal initials into *digits* to be compared with the digits representing the agent's target order. This *decoding* of initials into digits was done by referring to the agent's code. For instance, using the code given above, when B.S.'s call was Lion, the digit 4 was recorded in the decoding process ; a guess of Giraffe was decoded as 2, and so on. These digits representing B.S.'s calls were written on the experimenter's record sheet in the 'G' (guess) column, adjacent to the 'A' column of random digits indicating the agent's target order.

For completeness of description, this Guess column on the experimenter's sheet could have been labelled : 'B.S.'s guesses decoded into digits through Agent So-and-So's code.' Such a label was of course too obvious to be needed *when there was only one agent*.

Let us now turn to the controversial two-agent series. In these tests B.S. thought Mrs G. Albert was the agent, but unknown to him Miss R. Elliott was also acting as agent. The five animal cards of each agent were so arranged that the agents were never looking at the same animal card on the same trial. For example, when the experimenter held the digit 2 at the screen opening, Agent Albert would look at her second card which was, say, Giraffe, while Agent Elliott would look at her second card, say, Elephant. As usual, B.S. in another room wrote down animal initials as his guesses.

G A

Mr B. Shackleton
23rd May, 1941

E	A
4	2
3	4
5	1
4	2
1	3
3	4
2	5
1	3
5	1
5	1
2	5
3	4
1	3
1	3
2	5
3	4
2	5
1	3
3	4
5	1
2	5
4	2
4	2
2	5
2	5
1	3

C O D E	1	2	3	4	5
Elliot	P	E	L	G	Z
Albert	Z	G	P	L	E

Fig. 1.—Copy of the first run from the two-agent experiment. There is 1 direct hit on Agent Elliot's cards, 3 direct hits on Agent Albert's. For (+1) displacement, the scores are 4 and 8, respectively. For (−1) displacement, the scores are 6 and 5, respectively.

The first run of these tests is reproduced here. (The remaining five runs were recorded in the same manner.) I suggest that Dr West and Dr Soal have not stopped to consider carefully what these three columns of digits *mean*. They have perhaps been led astray by the two columns 'E' (Elliott) and 'A' (Albert) appearing under the *Guess* column heading. Dr West was said to have 'observed that B.S.'s guesses had been recorded in the "A" (target) column'. I suspect that actually what Dr West *thought* he observed was rather that the target orders for the two agents seemed to have been written in the *Guess* column, and from this he deduced that the remaining column must be B.S.'s calls.

A moment's reflection would show that there was no need for *two columns* of random digits for the agents—one *list* of random digits was used to determine their card orders. The two codes at the bottom of the run plus *one list* of random numbers tell us exactly what each agent's target order was. The first digit in the 'A' (target) column is a 2, and means that both agents looked at

the second of their sample cards. From the codes at the bottom of the run, we see this was an E(lephant) for Agent Elliott and a G(iraffe) for Agent Albert. The second digit is a 1 and means that Agent Elliott looked at P(elican) while Agent Albert looked at Z(ebra). And so on through the run. This column of random numbers was said to have been prepared by Dr Soal before he even came to the session. If this were so, it is difficult to see how B.S.'s calls could have got into that column during the experiment.

Moreover, if we look down the columns of digits under 'E' (Elliott) and 'A' (Albert) in the Guess column, we see that *on every trial* the digits stand for exactly *the same animal*. Thus, the first digit under 'E' is a 4; from Elliott's code we see this number stands for G(iraffe). Under 'A' (Albert) the first digit is 2; from Albert's code we see this also stands for G(iraffe). The second digits under 'E' and 'A' are 3 and 4, respectively, both representing Lion. And so on down the column *for every trial*.

These digits under 'E' and 'A' cannot stand for the agents' card orders—the agents looked at *different animals* on every trial.

The figures in the Guess column must mean *exactly what they meant on all other record sheets* in the Soal-Goldney experiment: 'B.S.'s guesses translated into digits through the agent's code'. But because here there were two agents and thus two codes, B.S.'s animal initial guesses had to be *decoded twice*. The labels 'E' and 'A' under the Guess column mean: 'B.S.'s guesses decoded by Agent Elliott's code,' and 'B.S.'s guesses decoded by Agent Albert's code.'

The procedure followed here must have been the same as that used in single-agent experiments.

The figures in the three columns are without meaning unless we take the column headings seriously. If, as Dr West did, we assume B.S.'s calls to be in the 'A' (target) column by mistake, what do the digits *mean* in terms of animal cards? The first digit there is a 2. What animal does it stand for? By which code shall we translate it? If the other two columns are the agents' card orders, as Dr West supposed, then the agents must have been looking at the same card on each trial. Therefore B.S. must have hit on both agents' cards *equally* well, but is credited with a hit on only one agent at a time. And what ever became of the original *single* list of random numbers used by Dr Soal during the experiment? The thing becomes nonsense if we pursue very far the notion that B.S.'s calls are in the target column by mistake.

In short then, the target series is in its proper place in the 'A' Column, B.S.'s guesses are correctly entered in the Guess column,

and the figures for this two-agent experiment are given correctly ¹ in the original Soal-Goldney report.

The damage done by the unfortunate 'correction' in the March issue should not be underestimated. True, the 'errors' made virtually no difference in the main conclusions of the Soal-Goldney report. But, rightly or wrongly, the mere *presence* of such an undetected recording and counting 'error' naturally called into doubt the accuracy of every page of the Soal-Goldney experiment. If the personnel of the experiments, the witness, the group of independent observers (to whom both originals and duplicates were sent for scrutiny), and 'several American parapsychologists' all missed such a gross 'error', then their competence to check any data would have to be questioned.

Let us hope the damage can be undone.

There is one further point which I believe may be of deeper seriousness for psychical research. Unmindful of the law of parsimony, Dr West suggested that the 'error' (if I understand him correctly) might have been caused by the *psychic* influence of the experimenter affecting various persons in the experiment and presumably extending even to the subsequent checkers. This view will no longer be maintained, of course, but in psychical research we know too well that once a hypothesis (however improbable) is presented, it is likely to be applied to all sorts of occurrences. It would surely be unfortunate in any future psychical experiments if simple human errors were to be accounted as anything more than what they are—mistakes.

I note that Dr Soal wrote (March issue, p. 217): 'I have examined the similar two-agent experiments in the Stewart scores and in these no such error has been made.' Perhaps Dr Soal should examine the Stewart series again.

BETTY HUMPHREY NICOL

19 June 1956

Watertown, Massachusetts.

SIR,—I am much indebted to Dr Humphrey Nicol for her pains in pointing out that the supposed 'error' in confusing $+1$ with -1 scores in one of the Shackleton experiments was in reality no error

¹ In rechecking the direct hits for Agent Albert, I find 3 hits for the first run of the three sheets in question whereas the original report (p. 102) gives 8 direct hits. With this correction, the total direct score for Agent Albert becomes 24 instead of the 29 given. All other scores for the three sheets agree with those in the original report. Of course it is not possible for me personally to vouch for the accuracy of these sheets as copies of the lost originals.

at all. I fully agree that her interpretation of the scoring sheets is the only possible one.

I have looked up the Stewart records in which two or more agents were in opposition and they follow the same pattern as the Shackleton record: that is, the 'A' column was filled with random numbers before the experiment and the columns to the *left* of this are merely Mrs Stewart's guesses translated into numbers by means of the codes of the different agents. I have further checked the actual $+1$ and -1 scores and feel confident that no error of confusion has been made.

I must apologize to Dr Wiesner for suggesting that he entered Shackleton's guesses in the wrong column since that was certainly not the case

The error of 8 'direct' hits instead of 3, which I have known about for a long time, was originally a typist's error that escaped correction. It is of no importance in the present experiments, which are concerned with displacement scores.

S. G. SOAL

London, S.W.12

SIR,—In detecting my blunder Dr Humphrey Nicol has done us all a good service. If I raise some quibbles about one or two of her comments, she has every excuse for writing them off as the product of natural pique.

Since Dr Soal himself thought at first that my reading of the data was correct, I did not bother to explain my line of reasoning. In her letter Dr Humphrey Nicol has by implication attributed to me an even more inconsistent and sillier interpretation than the one I actually had in mind. I imagined that the first code (the Elliott code) had been used for the recording of all three columns, that the middle column 'A' showed the list of random numbers which determined agent Albert's targets, and that the left column 'E' represented the same series translated according to the second code. Thus in the first trial when the first agent looked at elephant, which is represented by 2, the second agent would look at the corresponding animal in the second code, namely a giraffe, which is represented by 4. I failed to notice that on this interpretation the code labelled Elliot was being used by the agent Albert and vice versa. So Dr Humphrey Nicol's interpretation is undoubtedly correct, not only because it is simpler and conforms with the usual practice in the Shackleton experiments, but also because of this matter of the reversal of the codes which makes my interpretation inconsistent—although perhaps not quite so impossible as Dr Humphrey Nicol supposed.

Dr Humphrey Nicol deserves congratulation for her alertness in spotting my misinterpretation when others closer to the scene failed to do so. But had she not spotted the mistake, that would have been no reflection on her general competence. Likewise, if a clerical error such as I suggested had in fact crept in, I cannot agree that it would reflect seriously on the competence of parapsychologists. We can try to be accurate, but we can never be infallible.

As for my speculations about the possible influence of experimenters on the nature of their ESP results, I think it helpful that we should feel free to advance imaginative hypotheses provided we keep them in their place and remember that they are scientifically valueless until they have been tested by experiment. In this instance I am glad I made the speculation because I have since heard from another parapsychologist who believes he has observed an almost identical incident in which mistaken reading of the score sheet made no difference to the apparent result. I believe such possibilities deserve investigation, and I hope no potential investigator will be deterred either by my blunders or by Dr Humphrey Nicol's invocation of the law of parsimony.

D. J. WEST

London, N.W.3

OBITUARY : CARL VETT

WE regret to report the death at an advanced age of Mr Carl Vett, who has been a Corresponding Member of the Society since 1924. Mr Vett, who was a Dane by birth, will be remembered by psychical researchers as the inaugurator of the five International Congresses held between the two World Wars, the first of them being at Copenhagen in 1921. He was indefatigable in making personal contacts with psychical researchers in many countries, and had the gratification of seeing them so soon after the First World War meeting together in friendly discussion on the neutral soil of his native land. This would not have been possible had he not possessed a truly international outlook as well as great cordiality of manner. At different times he lived in Turkey, where he made a study of the Dervishes, and in other parts of the East ; during the second war he was living in California, and later for a time he made his home in Mexico. A tribute to his work in connection with the International Congresses was printed in the *Journal* for March 1955.

NEWS AND NOTES

Dr Nash's Parapsychology Laboratory

The June issue of the *Journal* contained an announcement of a grant from the Parapsychology Foundation, New York, to Dr Carroll B. Nash for research in parapsychology at Saint Joseph's College, Philadelphia. This research, Dr Nash informs us, will be done in addition to the normal duties of himself and his wife, Dr Catherine S. Nash, who are both full-time teachers of Biology at the College. At our request Dr Nash has given the following brief note of the work on which they are engaged :

Our experiments during the past year were directed to determining (1) the relationship of personality factors and attitudes to psi ability, (2) the ability to successfully predict whether a call is a hit, (3) the effect of the manner of representation of the target, e.g. a target that is a number may be represented by a word, by an Arabic numeral, by a Roman numeral, or by a number of dots, (4) the effect of the number of targets and the *p*-value on the scoring in high and low aim tests, (5) the possibility of predicting the targets on ESP cards in sealed, numbered envelopes by the analysis of multiple calls, and (6) whether there is a gestalt to ESP as indicated by the relationship of digits correctly perceived to the number of digits in the target. The time and facilities available to us during the next year will be devoted to analyzing the results of these experiments, the nature of which will be affected by the results of these analyses.

Lectures on Psychical Research at Liverpool University

A course of ten lectures on psychical research will be given by a member of the Society, Miss P. M. Clark, M.A., for the Extra-Mural Department of the University of Liverpool. The class will meet weekly on Fridays, from 7.30 to 9.30 p.m., in the main University building, beginning on 5 October 1956. It is intended as a straightforward introduction to the subject, with opportunities for discussion and small-scale experiments. Further details may be obtained from the Extra-Mural Department, University of Liverpool.

Parapsychology in an Italian Medical Journal

The C.S.P. (Centro Studi Parapsicologici) of Bologna, Italy, has arranged for a supplement on parapsychology to be included in the Italian medical journal *Minerva Medica*. The first number of the supplement, entitled *Parapsicologia*, which is prepared by the C.S.P., consists of a long article by its Vice-President, Dr E. Marabini, reviews of books, and notes on current activities in the field of psychical research.

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